

Intergovernmental Solutions Newsletter

Government by Collaboration

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Collaboration and Emerging Technologies in Government

By Darlene Meskell
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he 21st Century society poses challenges of unprecedented complexity. No individual, department, agency, or government can single-handedly achieve results like ending climate change or reviving the global economy. Multi-organizational networks are needed to integrate communications, data and resources to effect transformational change.

Collaboration is not new in government, nor is using technology to collaborate. When citizen expectations are stimulated by new technology and enabling legislation, governments are compelled to find new ways to share knowledge and learn from each other, balancing different needs, interests and priorities. The Internet and incredible new technology enable the automation of public services, but government cannot deliver the level of performance demanded by the public without unprecedented cooperation among public, private and nonprofit organizations.

Featuring 22 contributions from key players in governments and other organizations around the world, this newsletter explores some of the many ways technology is expanding opportunities for governments to collaborate on public-policy decision-making—and ways collaboration is increasing the range and power of technology to dramatically alter the accepted ways of doing business.

Everybody's Doing It

Issuing its Open Government Directive in December 2009, the White House recognized that *Collaboration Makes Open Government Possible* and launched an ambitious program to make government data available to all, to make its processes transparent, and to make its culture collaborative. To address this requirement, the U.S. government has had to change its cultural norms—quickly—and adopt new technology and procedures that depend on an active spirit of collaboration. So have other governments. Public servants in Canada, for instance, eliminate email, archiving and e-

discovery problems by collaborating with one another on GCPEDIA: The Canadian Government Wiki. The European Commission, building a stillnew economic and political union of 27 countries, relies on Collaboration without Frontiers-Using Innovative **Technologies** to develop a unified, strong and stable European government. Four Large-Scale Pilots that Test Cross-European Interoperability illustrate the power of collaboration to drive a technologically advanced European Union. Other **Countries Look Within to** Collaborate on more networked service delivery as the foundation for a new approach to delivering public services, and the **UK's Joined-up** Government Aims to Transform Bureaucracy by increasing public influence over service development and delivery.

Engineering a Collaborative Government

The urgent problems facing government today do not respect organizational boundaries, so Overcoming the Silo Trap and achieving a "whole-of-government" perspective becomes a critical objective for creative solutions. The Right Conditions for Collaboration, like those modeled by the federal Web Managers Council, must be in place going forward. More nuanced Preconditions for Successful **Collaboration** call for leadership and competence, pre-existing relationships, the allocation of power, governance approaches and accountability. Institutionalizing Collaboration as A Core Capability for 21st Century **Government** will create environments that encourage and support the free exchange of ideas and information. Changing organizational norms and management principles will require leadership at all levels of an organization. They will need *Essential* Competencies for Managers, the knowledge, skills and behaviors required to Build an Organization's Capacity to Collaborate, and make a difference in the 21st Century.

Before the White House Open Government Directive was issued, federal policies discouraged government agencies from using emerging technologies, specifically the common, easily accessible social media tools that were offered free online. Then, a coalition of federal Web managers and attorneys entered into negotiations with social media providers to dismantle the legal and regulatory barriers. This cleared the way for legal counsel in many agencies to lift restrictions on the use of those tools, Making Social Media Legal for Mission-Related Outreach.

Cross-sector collaboration is attacking systematic challenges to the Department of Veterans Affairs' VistA system, considered "the largest, most comprehensive, fully integrated electronic health information system in the world." VistA is seriously out of date, and many attempts to bring it up to 21st Century expectations failed. Then VistA's champions enlisted the help of the government/industry IT community to create and nurture an environment where Government and Industry Collaborate to Modernize **VistA**. The State of Michigan and the state's small business community collaborated to build enterprises that create jobs by **Crossing Boundaries** to Reach the Michigan Business One Stop.

Collaboration Tools and Platforms

Data Sharing Began Geospatially when the geospatial community came together years ago to establish standards for data exchange, build data clearinghouses and develop partnerships for the creation of local, state and national data sets. Another early model of an open, collaborative, and participatory culture, EPA's Environmental Exchange Network is a federal/state/local partnership to support better policy decisions through improved access to environmental information.

As government's need for collaboration tools and platforms grows, so do the numbers of free and commercial applications and services available.

ParticipateDB helps users find the applications they need.

Collaboration to improve government is occurring on a great variety of platforms, with assistance from a growing crowd. GovLoop.com, the leading social network for public servants and people supporting government, currently has over 29,000 registered users. All of the members of GovLoop's "Extraordinary Collection of Talent" can weigh in to help find solutions to difficult publicsector problems. The BetterBuy Project was born in a GovLoop discussion group, Acquisition 2.0, which federal acquisition executives created to surface ideas on how to improve the government procurement process. In weeks of discussion online, the GovLoop community suggested many ways to achieve **Better Buying** through Collaboration.

Virtual environments offer a very different platform for collaborating. MuniGov2.0, a group of mostly local government technologists, was created by a couple of mid-level managers who wanted to share their ideas about public service with hundreds of their closest friends and collaborators. Proficient in many innovative technologies, they learned how Second Life Enables Governments to Collaborate, and now hold weekly meetings through avatars in that virtual world to compare notes. In fact, a team of scientists from several major universities, who formed the first professional scientific organization based entirely in virtual worlds. contends that Virtual Worlds as a Setting for Scientific Collaboration.

Maybe they are onto something. But as these articles strongly suggest, it is not just the features of the technology but the fact of the collaboration that sets out an inspiring new vision for government in the 21st Century.

Darlene Meskell is director of Global Government Innovation Networks, formerly Intergovernmental Solutions, in the GSA Office of Citizen Services and Communications.

Collaboration Makes Open Government Possible

Innovative technology makes it all more transparent, participative and collaborative.

By David L. McClure
Associate Administrator
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resident Obama's Open
Government Directive was
issued in December 2009 to fulfill
the promise he made on his first full
day in office: to "create an
unprecedented level of transparency in
government" by establishing "a system
of transparency, public participation
and collaboration." The directive
requires federal agencies to take four
steps to deliver this unprecedented
openness and mandates a series of
milestones to build an open
government infrastructure in four
months:

- 1. Publish Government Information Online in open formats.
- 2. Improve the Quality of Government Information available to the public.
- 3. Create and Institutionalize a Culture of Open Government.
- 4. Create an Enabling Policy Framework for Open Government.

The goals have encouraged executive branch agencies to coalesce around a number of new initiatives that are changing the relationship between the federal government and the people it serves. Some of these initiatives are designed to expose government data and improve the quality of the data displayed. Some were designed to increase the transparency of government policy- and decisionmaking and hold officials accountable. Others were intended to offer the public a platform and incentives to provide immediate, direct input to policy development.

Each initiative is transformational in intent and scope. They will be very hard

to accomplish on the scale and within the timeframe demanded without an unprecedented degree of collaboration across government and with the private sector. Innovative technology solutions are critical.

We found ourselves on the front lines of this collaborative effort at the start. Since GSA's mission is to support the needs of the executive branch government-wide, this was not unexpected. Luckily, we had laid the groundwork for this high-profile project over the past 10 years. We were able to build upon our government-wide Web manager community's years of collaboration on website standards, sharing best practices and technology solutions, and devotion to making the government Web presence userfriendly. Members looked to each other for help in meeting the White House Open Government requirements, particularly the quick-turnaround requirement to engage citizens in an online dialog within 60 days.

GSA identified a no-cost online engagement tool, and worked in collaboration with the Web Managers Council to implement the tool quickly. The tool helps agencies gather ideas from the public, allows people to comment on those ideas, and provides thumbs up/thumbs down voting so the best ideas rise to the top for agency review. GSA leveraged its role as a central agency to identify the tool, modify it for government use, and provide training to moderators across government. The tool was in place before the White House 60-day deadline

on virtually all of the largest federal departments and agencies' open government pages.

GSA shared all documents and put all materials, test results, outreach tools, and engagement techniques online. establishing a community of practice in government online engagements. The out-of-pocket cost of this online dialog totaled around \$80,000, mostly for training and staff support, and far less than it would have cost a single agency to put an equally effective tool in place. To date, more than 1,900 ideas, 3,900 comments, and 30,000 votes from more than 8,000 users have been logged across these simultaneous dialogs. The similar look-and-feel of all these GSAsupported dialogs enhanced the credibility of the process overall and reflected well on the Open Government initiative.

Our ability to respond quickly to the need to build a citizen engagement platform within the federal government illustrates only one of the ways my office is gearing up to bring innovative technology to the task of making government more transparent, participative and collaborative. We work with technology leaders in other countries and in state and local governments to identify and adopt innovative technologies and techniques. We help technology providers in the private sector understand the benefits of developing innovative solutions for the public sector. We will be creating, adapting, testing and applying leading-edge technologies for use by the government. All the while we will be drawing on the collective brain power of all of those who are interested in joining us in building a 21st century government.

David L. McClure was appointed as the Associate Administrator of the GSA Office of Citizen Services and Communications effective August 24, 2009. His experience includes leading technology programs for the Government Accountability Office and the Council for Excellence in Government. Prior to joining GSA, he was the managing vice president for Gartner Inc.'s government research team.

GCPEDIA: The Canadian Government Wiki

This article is an exercise in collaboration by GCPEDIA users

he government of Canada has been exploring the application of Web2.0 technologies with the goal of supporting internal collaboration and advancing service excellence within a government context. This exploration is a result of collaboration between numerous Canadian federal government departments and two central agencies: the Treasury Board Secretariat and Public Works and Government Services Canada.

One of the first components of the internal Web 2.0 platform is the governmentwide wiki, GCPEDIA. Based on the popular MediaWiki software, GCPEDIA is accessible to government of Canada network users (approximately 250,000 public servants from more than 150 departments and agencies). Content is created for and about the public service and, while it may be read anonymously, only registered users are able to add or modify content.

History

In the fall of 2007, a limited-scope wiki was made available for experimentation to a closed user group. Pathfinder projects included the drafting of policy documents and a test for a library of architectural artifacts. Results proved encouraging.

In October 2008, the pilot was expanded into a general-purpose enterprise wiki, deployed as an open environment with a limited number of rules. Open to all government of Canada public servants, the pilot was intended to provide a place for people to share and work together.

In January 2010, there were 12,000 users, 5,700 pages of content, 1.8 million page-views, and an average of

350 new registered users per week. It is clear that the wiki component of GC's Open Collaborative Workplace is thriving.

The GCPEDIA Team

Early in the project, a steering committee was formed to provide managerial oversight. In addition to executives, the committee includes representation from users and new professionals in the public service. By the summer of 2009, what had begun

as a project off the corner of a desk had evolved into a team of five full-time staff supported by students and volunteers.

Today, the team is transitioning to become more community based. Several government of Canada organizations are coming forward to take on the development of formal governance processes for GCPEDIA.

Furthermore, support systems and policy compliance protocols are in a constant state of development.

Eventually, ongoing operations for GCPEDIA, the professional network GCONNEX, and other tools are expected to require 10-20 full-time staff providing technical, community, and policy support. The vast majority of content maintenance and policy compliance will be conducted by GCPEDIA users.

Initially, GCPEDIA was envisioned as a community-built repository of knowledge specific to the Public Service of Canada; sort of a Wikipedia for the government of Canada. However, few restrictions were put in place, enabling users to decide where they saw value in the tool. In August 2009, after operating for nearly a year, a content review was undertaken to determine how it was actually being used. The results are consistent with what others seem to be experiencing with enterprisewide, general purpose wikis, namely that users find value in a wide variety of ways.

According to the August 2009 content review, government of Canada public servants were using GCPEDIA primarily to share information and gather project/performance feedback; and build collaborative and interdepartmental communities of practice; establish terms of reference for interdepartmental committees; and as support networks across a wide range of topics (see Figure 1).

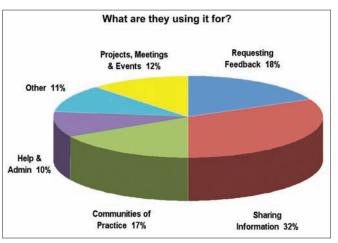


Figure 1 - Use of GCPEDIA

The key advantages being reported are easier collaboration, and faster and more accurate information sharing. GCPEDIA users across Canada are finding new ways to use the tool to make their work lives easier and more cost-effective.

One called the platform an invaluable collaborative tool for the Financial System Authority, stating:

"We use it as a method to not only disseminate information, but as a tool to collaboratively work with our colleagues [...] as we build new policies and directives. We have lately been

using it as one of our primary channels to disseminate the toolkits from our governmentwide initiatives. By using collaborative tools like GCPEDIA, the number of interdepartmental fora we have to hold has been reduced and the cost-savings have gone into producing toolkits for our client.

One contributor from a midsized department said:

"Having the tool already established and in full working order means that I do not have to negotiate with my own underresourced IT team to create a new product, or to customize existing technologies we may have to suit my needs."

Regional organizations are latching on to GCPEDIA with tremendous enthusiasm because it allows them to participate in collective endeavors to an extent that was previously unachievable.

For example, PrairieComm 2009 brought together 100 federal government communicators from three provinces. The organizing committee used GCPEDIA to publish the agenda, registration information, etc., for the conference. Previously, information about the conference would have been published on the Regional Federal Council's Web site, where updates could take a week or two to appear.

A GCPEDIA registrant from Yellowknife, (near Alaska) states:

"I see real potential for GCPEDIA to make our world larger (almost real-time networking with all federal employees) while making our world smaller (reducing the cost and impacts of geographical distance in work teams). I'm excited about the possibilities."

Policy Compliance Is Challenging

There are a number of major policy areas that the GCPEDIA team must take into consideration while developing protocols. To that end, the team has been in constant contact with policy and legal authorities. With most of the policies and legislation predating the Internet, GCPEDIA

itself is proving to be a useful living laboratory for identifying and working through compliance issues.

The reality of mass collaboration and dynamic content is raising new questions about such things as recordkeeping (Is a wiki page an official record?), language (How do we respect bilingualism?), and control (Who owns a collaborative document?). These and other questions are being answered iteratively, in many cases within the wiki itself, as the relevant groups come together to address the policy challenges.

Users Must Understand the Application to Appreciate its Value

GCPEDIA has not been heavily promoted; rather, users were encouraged to embark on an independent process of discovery. As such, most early users came to the platform with some technical proficiency and aptitude for social media. As the popularity of the tool grows, there is an increasing need for technical training on how to use GCPEDIA as well as cultural training on the new ways of conducting business allowed by GCPEDIA.

Community Management is Essential

Certain core elements, including GCPEDIA community coordinators, are needed to facilitate collaboration between communities, as well as to motivate and engage community members and/or monitor GCPEDIA user activity and content. The evolving role of community management needs to be more widely understood and practiced.

GCPEDIA is one part of an open collaborative workplace that is now being developed collectively. There are organizational and procedural barriers to this collaboration, but the desire of the members to see the benefits of collective action materialize, and their willingness to work together to find solutions is encouraging.

In the days ahead, we can expect to see a growing integration of the tools into the day-to-day work life of public servants. The horizontal governance mechanisms for supporting collaborative efforts will mature with evolving rules and community management practices. The use of GCPEDIA as an internal government of Canada tool will evolve, and perhaps we will see linkages to similar external tools for multijurisdictional collaborations.

The success of GCPEDIA will be measured by the degree to which it is embedded in the daily lives of public servants. Or, as one user put it: "If we didn't have GCPEDIA, we would have to invent it."

About This Article

This article is a collaborative product. An early draft of this article was posted to the wiki and a general invitation made for contributions via a main page advert, and Twitter posts on the internal GCCONEX platform and the external #GCPEDIA hash tag. An estimated 200-300 people were reached. Three days were allowed for contributions. Five contributions were received. The article was moved to a Word document and e-mailed for further editing. This was done to accommodate e-mail-based approval processes.

In the future, when a significantly higher percentage of public servants become registered users of GCPEDIA, it is reasonable to expect that contribution levels will be higher. In addition, we may see approval processes adapt to the new technologies with a corresponding increase in efficiency.

For more information on GCPEDIA, contact Pierre-Alain Bujold, media relations spokesperson, Strategic Communications and Ministerial Affairs, Treasury Board Secretariat, Government of Canada at 613-957-2640.

Collaboration without Frontierswith the Use of Innovative Technologies

By Dr. Mechthild Rohen Head of ICT for Government and Public Services European Commission

ollaboration and citizen empowerment are central to the European Union policy on e-government announced in Sweden in November 2009. This policy is the result of a voluntary collaborative effort of the 27 EU member states. It identifies collaboration as a key instrument for developing e-government in Europe, following the ministerial declaration on e-government issued last November in the Swedish town of Malmö.

The Ministerial Declaration on eGovernment lays the political foundations for an e-government action plan for the EU for 2011- 2015. It defines three political priorities for European actions in e-government. The first one is the empowerment of citizens and businesses. The concept of empowerment is relatively new in the EU's e-government policy and figures prominently as one of the priorities in this ministerial declaration. Empowerment also transpires in the two other political priorities that are traditionally at the core of the European single market, e.g., the necessity to improve the efficiency and effectiveness of public services and administrations across Europe. Empowerment can be achieved through collaboration among all actors. Indeed, the declaration states that the objective of future actions in e-government is to make sure that citizens and businesses "are empowered by egovernment services designed around users' needs and developed in collaboration with third parties, as well as by increased access to public information, strengthened



transparency, and effective means for involvement of stakeholders in the policy process." Such a goal can only be achieved if governments and their administrations are transparent and citizens and businesses are able to trust them and to work in cooperation with them.

A second objective is to facilitate the reuse of public sector information that forms a basis for the creation of services, a technique that is already widely used by Internet communities. It enables citizens and businesses to make the best possible use of public information and, in so doing, to create more value for society.

Empowerment also aims to increase citizens' and businesses' participation in governance. That is

why the Malmö ministerial declaration introduces a new angle of public governance that coincides with the introduction of Web 2.0 technologies in e-government. The ministerial declaration looks not only at participation as a means to improve the relations between governments and their constituents, in the traditional way of participatory policies, but also as a means to improve the efficiency and effectiveness of public authorities. Working together and sharing resources in Information and Communication Technologies, including in all other policy areas, helps governments to reduce their costs and to increase their performance levels. This also allows citizens and businesses to work more efficiently as they rely on their administrations for running many of their daily activities.

The declaration distinguishes three kinds of collaboration: between administrations, between the public and the private sector, and between the public and the civil society. It encourages administrations to break the current structure shaped in hermetic pillars and to re-engineer their structure to cut organizational boundaries, so as to share information, pool resources, and jointly produce services for society. It calls on national administrations to collaborate with the private sector.

Finally, the Malmö Ministerial Declaration on eGovernment is also a turning point in e-government policy, as it promotes active collaboration with users. It recommends the development of socially inclusive policies and services with a genuine concern to involve citizens in the policymaking process. A conceptual

innovation is the introduction of the notion of user-driven services, which suggest that users are in the driving seat, either as co-designers, co-producers of content, or co-operators of services.

At the closing session of the Malmö Ministerial Conference, Minister Mats Odell, representing the Swedish presidency of the European Union, and Zoran Stancic, Deputy director general of the Information Society and Media Directorate, both praised the open declaration on e-government and the involvement of citizens who spontaneously gathered on the Internet to draft it in parallel to the official ministerial declaration. This open declaration was produced independently from the European Commission and calls for more openness, transparency, and collaboration.

Stancic also noted that the ministerial declaration itself represented a significant political

achievement of collaboration. He pointed out that the EU member states had agreed to pave the way for a new generation of innovative egovernment solutions in the public sector where "inherited procedures and national styles still persist and administrations are frequently being described as self-contained silos."

Stancic noted that an agreement had been reached "on a voluntary basis, without any political, legal or technical imperative commanding them to do so." In this way, the member states have embraced the spirit of the open method of coordination defined by the European Commission as a nonbinding instrument in which member states agree to identify and promote certain policies and create the conditions to learn from each others' experiences. It will now be up to the European Commission to take up this spirit and apply it in the new e-government action plan for 2011-2015.

Four Pilots Test Cross-European Interoperability

By Dr. Mechthild Rohen Head of ICT for Government and Public Services European Commission

urope has set up several initiatives to foster e-government interoperability in the European Union. To make interoperability in several key areas of public services possible, EU member states are encouraged to participate in temporary consortia that test cross-European interoperability.

A number of well-defined 3-year largescale pilots in high-priority areas have been co-sponsored by the European Commission and the participating member states. These include electronic ID, public procurement of services (e-procurement), online health records (e-health), and the EUwide provision of services under the services directive, which requires a one-stop shop for the creation of companies abroad. The success of these four large-scale projects demonstrates the transformative power of cross-border collaboration.

1. e-ID



STORK, which stands for Secure Identity Across Borders Linked, is the pilot that

researches interoperability of national electronic identities. The aim of the STORK project is to establish a European e-ID interoperability platform that allows citizens to establish new e-relations across borders and to access

e-government services, just by presenting their e-ID.

Cross-border user authentication for such e-relations will be applied and tested in five pilot areas of EU member states that already use e-government services. In time, additional service providers will also become connected to the platform thereby increasing the number of cross-border services available to European users.

In the future, European citizens should be able to start a company, get a tax refund, or register in school or university without having to be physically present at the relevant administrations abroad. All they will need to do to access these services is to enter their personal data using their national e-ID, after which the STORK platform will obtain the required authentication from their government.

The role of the STORK platform is to identify a user who is in a session with a service provider, and to send his data to this service. While the service provider may request various data

items, the user always controls the data to be sent. In other words, the explicit consent of the owner of the data, the user, is always required before his data can be sent to the service provider.

2. e-Procurement



The objective of the Pan-European Public e-Procurement On-Line large-scale pilot

is to find a pan-European solution that, jointly with existing national solutions, facilitates EU-wide interoperable public e-procurement. The vision of the PEPPOL project is that any company and, in particular, small- and mediumsized enterprises in the EU, can communicate electronically with any European governmental institution for procurement procedures.

The final outcome of this pilot will be an inter-operational environment built upon national systems and infrastructures that support the full cycle of e-procurement activities.

The pilot will help any economic operator in the EU and the European economic area respond to public tender notices electronically and conduct the entire procurement process from their own national infrastructure. That is why this pilot focuses on increasing the participation of small- and medium-sized enterprises in public e-procurement.

3. e-Health



European Patients Smart Open Services is a large-scale pilot with 27 participants representing 12 EU

member states, including ministries of health, national competence centers, and numerous companies. This is the first European e-health project involving the active cooperation of so many countries.

The overall goal of epSOS is to develop a practical e-health framework and an information and communication technology infrastructure that enables

secure access to patient health information, particularly basic patient summaries and electronic prescriptions, between different European health care systems.

To achieve this goal, the national entities cooperating within the program test both services in pilot applications that connect the national systems. This approach aims to deliver a methodology, which, in the long run, can implement the fundamental base of a pan-European approach to interoperable services.

The project is structured around work packages that analyze the current situation in the participating countries, explore legal questions, develop technical specifications for secure use of personalized health data, and set up the environment where test findings can be validated in a close-to-real-life situation.

4. EU Services Directive



Simple Procedures Online for Crossborder Services is a large-scale pilot

project that aims to remove the administrative barriers that European businesses face when offering their services abroad. This pilot will enhance the quality of electronic processing and has been designed for businesses that have an interest in cross-border activities. It will allow them to meet all the administrative obligations through a single contact point that is now available online in all EU member states.

It will initially involve at least two professional categories of service providers, and its results will be widely promoted to raise awareness and to encourage innovative solutions for administrative simplification. A special effort will be made to disseminate open specifications, share knowledge and best practices, and encourage further cooperation. A wide range of organizations is represented among the partners, ensuring that the value chain – from decision-makers to service providers and IT solutions – is

well-balanced and allows contributions from different backgrounds.

The pilot project will be implemented in successive phases. Emphasis will be placed on developing common specifications and tools for electronic services such as technical and semantic interoperability, electronic documents and a services directory.

SPOCS' transparent working methods aim to facilitate consensus by public administrations, their suppliers and partners, and industry and standardization bodies. The national systems will not be replaced, but it will only take into account common specifications to ensure cross border interoperability.

The Future is Bright

E-governance and cross-boundary collaboration in Europe will be facilitated by these initiatives, each of which assumes the adoption of an aligned architecture, as opposed to a central management model with a centralized IT infrastructure.

This option challenges consensus among EU member states on the technical, contractual, and political levels to organize consolidated cross-boundary e-governance. Today, all 27 EU countries have their own national laws and have defined different levels of trust. To fully interface with each other, obstacles such as legal requirements will need to be overcome at a later stage. In the meantime, bilateral discussions are needed before full trust can be established.

I feel confident we are on the right track. Convergence of technical aspects is well under way, and the discussion of legal issues has started. The four pilots described here will help to create a trusting environment among the EU member states so the future is bright.

Dr. Mechthild Rohen is the Head of Information and Communications
Technologies for Government and Public Services, in the Information Society and Media Directorate-General of the European Commission.

Countries Look Within to Collaborate

By John Langford, Nancy MacLellan, and Jeffrey Roy

overnments must think and act differently to create a more networked architecture of service delivery and use collaboration as the foundation for a new approach to delivering public services. Innovative service arrangements require new forms of leadership and network management skills at all levels of government, as well as resource-sharing arrangements and governance structures designed to support collaborative arrangements.

Countries around the world are struggling with such dynamics. In a unitary state model such as Denmark's, e-government and service-transformation efforts feature formal intergovernmental planning and coordinating mechanisms to proceed in this manner. This approach is also used in other Nordic countries. as well as the Netherlands. On a much more modest scale-and in a federalist jurisdiction-Germany has piloted an integrated call-center initiative underpinned by the number 115 as a direct access line for inquiries regarding public service across any level of government (most similar 311 initiatives focus exclusively on the municipal level).

Belgium is, perhaps, the world's poster child for inter-jurisdictional complexity. A strong effort has nevertheless been made during the past two decades to improve administrative alignment and coordination across various levels of government. A turning point in this regard came in 2001, when the federal government, the regions, and the communities signed a formal cooperation agreement to forge a common platform for electronic service delivery.

Building on this common platform in 2003, Belgium became the first European country to launch a national electronic ID card, an exercise that began with a federally -sponsored pilot project with several municipalities before proceeding to national rollout. The card includes a unique identifier for each citizen that is now enabling electronic data exchanges and service provisions across widening segments of the county's social security and health care systems. A critical aspect of this identity management system is the Crossroads Bank for Social Security, an autonomous public sector body whose origins date to 1990, when it was established to form an initial repository for information holdings for citizens and employers contributing to or benefiting from social security programs.

The Belgian federated approach signals a determination to prioritize synergy over separateness in order to realize a more networked and integrative approach to the organization and management of service delivery. The ability to do so is owed in no small measure to two central elements: first, the willingness of all governments in the Belgian context to formalize a collaborative framework early on; and second, the common infrastructure provided by the Crossroads Bank for Social Security to the country's public sector as a whole.

In Canada, the formalization of crossgovernmental CIO and service delivery councils has begun to yield specific strategies to transcend traditional political boundaries and separateness in favor of more seamless architectures.

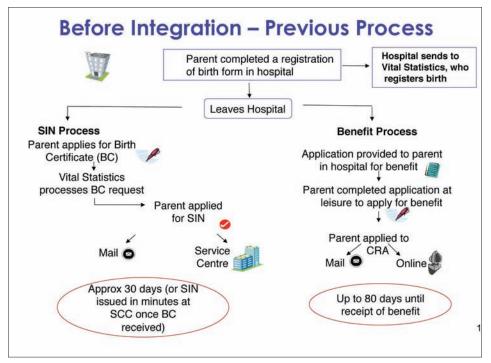
An early flagship initiative for integrated services across jurisdictions involved a collaborative undertaking begun in the late 1990s among Service Nova Scotia and Municipal Relations, the Nova Scotia Worker's Compensation Board, and the Canada Revenue Agency. Central to this partnership was the Nova Scotia Business Registry and a common business registration number shared by these organizations. This type of partnership has now been replicated in other Canadian provinces, including New Brunswick, Ontario and British Columbia.

This governmentwide perspective on information-sharing and service integration across jurisdictions also explains the rationale for BizPaL as a coordinated source of information for company requirements across all levels of government (federal, provincial and local). In a manner not unlike other provinces, Service Nova Scotia and Municipal Relations is helping to extend BizPaL to municipalities, with Halifax and New Glasgow the first locales to join.

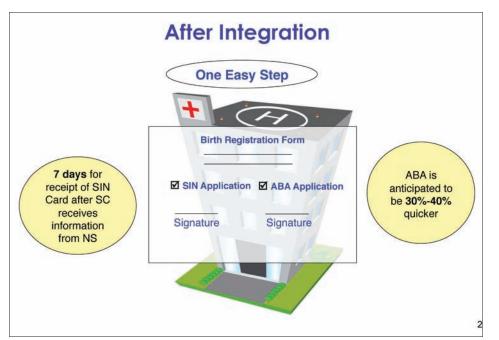
Like the Government OnLine initiative at the federal level, BizPaL brings information on service offerings and requirements from various government levels together in a single, online source; it does not yet permit simultaneous completion of these transactional processes.

Achieving such integration requires cross-jurisdictional governance mechanisms, a more complicated task in a federal polity that emphasizes separation of powers and autonomy.

In Nova Scotia, the focus is on organizing programs and services along life events, demographics, and/or business sector. These clusters of services cross departmental and orders of government so that business or citizen clients can accomplish their overall goals – such as starting a business, moving (change of address), or getting married. The province and federal partners have recently introduced a new



Prior to integration of services, the child's parent|caretaker had to make several applications to receive services.



Under the new integrated process, the parent simply fills out the birth registration form and apply for the SIN and the child and family benefit programs. The process is seamless to the citizen.

collaborative effort known as Bundled Birth Services. The partnership joins two federal government service providers (Service Canada and the Canada Revenue Agency) along with Service Nova Scotia and Municipal Relations, and it enables parents to complete otherwise separate processes for registering a birth--a provincial jurisdiction, and getting a social insurance number--a federal responsibility. This collaborative

undertaking allows parents to access tax benefits through this same mechanism via an automatic benefits application.

Citizens realize a number of benefits, including less paperwork and an easier application for multiple purposes, faster benefit payments, and a more efficient use of tax dollars, along with enhanced privacy and security. Government, in turn, benefits from improved efficiency and integrity, increased accuracy, greater public confidence, and satisfaction with the delivery of services.

Two critical enablers of this new, more seamless version of federalism are identity management and shared accountability mechanisms. A common identity framework across federal and provincial governments enables information-sharing and the bundling of service offerings, as opposed to organizational and political silos. Shared accountability is essential if such processes are to yield genuinely citizen-centric outcomes. Governments must come together through joint discursive and planning mechanisms to undertake decisions in concert with one another in a manner based less on process considerations and more on achieving genuinely citizen-centric outcomes.

Increasingly, governments at all levels need to embrace a mindset of interdependence in order to chart a holistic vision of service transformation for the country as a whole.

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UK's Joined-up Government Aims to Transform Bureaucracy

By Chris Harman and Sue Brelade Co-authors Knowledge Management – A Practical Guide

he drive for greater collaboration through technology is not simply a question of meeting public demand. With the current pressures on public-sector expenditure, in the UK as elsewhere, collaborative approaches offer the potential of saving costs combined with improving services – the "holy grail" for politicians and public service managers alike.

In the United Kingdom, 70% of households (18.3 million) had Internet access in 2009 – an 11% increase from 2008. Of these households, 9% had a broadband connection – an increase of 21% from 2008.

Public service delivery in the UK is set against this background of high Internet use by the public. It serves as both a driver for transformation of government services – to meet public expectations – and an enabler for new services and new methods of delivery.

The initial reaction of government agencies has been to respond with Web-based information services and access points. This is an understandable response and, on the surface, appears to demonstrate innovation and customerresponsiveness. However, the fragmented nature of public-service delivery - different departments, agencies, and tiers of government means this early rush to the online world has seen duplication and varying standards of quality and functionality. This, in turn, has created greater confusion and complication for the public. In effect, it has been a transfer of the bureaucratic model of government to the online world.

Increasingly, though, the emphasis is on "joined-up" or collaborative government, which is replacing bureaucratic models as part of a wider transformation of public services. Agencies use technology to drive collaborative and citizen-centric service delivery rather than simply duplicating existing divisions between public sector bodies.

This includes focusing public access onto a smaller number of high-quality websites such as directgov.gov.uk (the UK government portal) or the dedicated business services portal buisnesslink.gov.uk. This website rationalization program has a target of closing 9% of nonapproved government websites and moving their content to either of these two portals. As of January 2009, the project had identified 1,619 central government departmental websites. Of these, 97% have either closed or are planned for closure. In addition, of 902 websites outside of the direct central government, 75% are committed to close.

Collaboration in the development of new technologies to improve publicservice delivery is not just between public-sector bodies, but also between government and the public. For example, the UK government established the Power of Information Taskforce, which ran a public competition to identify better ways of communicating government information². The competition received 450 entries and suggestions that have been followed up include providing Web-based information to help those who want to set up a charity, to various proposals, including mapping the location of post boxes and bicycle

routes.

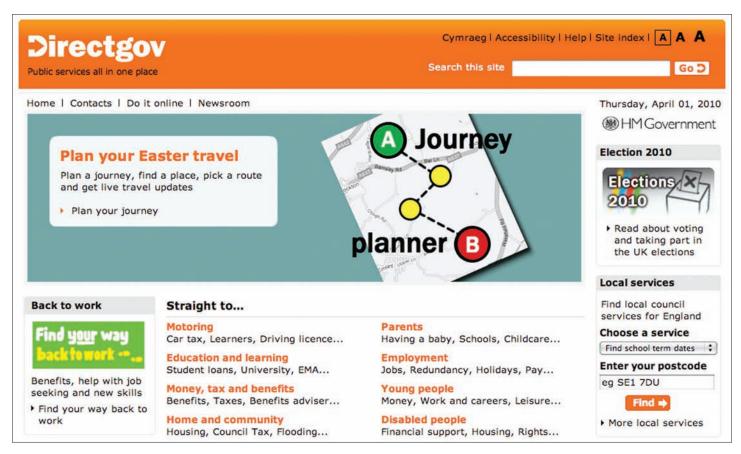
Cost savings can arise through:

- Reduced duplication between public service bodies: For example, the UK driver's licensing authority offers an online facility to obtain a new driving licence that can utilize photographs the applicant submitted to the UK Passport Agency, saving handling costs³; and
- Tailoring services to public requirements: For example, the UK health service facility for online booking of hospital appointments⁴ increases public satisfaction by allowing the public to book (and change) appointment times. It also reduces health services costs associated with nonattendance, late cancellations and rearranging appointments.

There are also areas for cost-savings through improving the efficiency of government, for example, in reducing losses arising from fraud and overpayment of benefits (welfare). The UK National Fraud Initiative matches electronic employment data from different public-sector employers with benefit claims. Any matches are reported to individual local councils for further investigation. In 2006-2007, this collaborative venture, only possible through the use of technology, detected £140 million in fraud and overpayments⁵.

Such initiatives do raise issues over the use and control of data. The increasing importance of this, provides part of the motivation behind the Government Gateway Project⁶. This project provides a secure online service for the public and organizations to carry out transactions with government departments and to transfer data. Since its inception in 2001, it has grown to encompass 17 million registered users and 13.9 million transactions in 2008-2009.

Another secure data transfer project, with potentially life-saving consequences, is the electronic transfer of patient records between doctors' practices. GP2GP is being



implemented nationally and enables patients' records to follow them quickly and securely when they change doctors.

Early versions of the GP2GP project identified a key issue in collaborative technology-based projects, the issue of interoperability between different systems. The UK government "Open Source, Open Standards" action plan is a key element in avoiding such problems in the future, as well as maximizing public-sector investment in information technology.

Issues of interoperability are also being addressed through greater use of the virtual integration of data in collaborative ventures. Typically, this will be through a front-end website that allows click-through to different data sources. From the citizen perspective, the service is seamless. For the public sector, the technological difficulties of integrating different IT systems are avoided, delivering significant cost advantages. This virtual linking and sharing of

information reflects the conceptual change from seeing information as physically located, something that is held in one place and one format, to information as infinitely replicable and reusable in different formats and combinations.

While it is possible to consider a number of individual initiatives using technology to improve collaboration, a broader approach is reflected in the UKTotal Place initiative. At its heart, this initiative has a simple idea: that closer integration of all public services within a geographic location will result in both service improvements and savings. A key driver for this is a recognition of the potential for technology to drive closer collaboration and integration at local level through the integration of backoffice and information-based services. Currently in the pilot stage, the project is looking at the total public-sector funding in specific pilot areas as a first step to the sharing of resources to support delivery. This initial step has not been without difficulties, given the

different structures, financial accounting systems, and financial planning timeframes between the parts of the public sector.

As an ambitious project, it is not without significant challenges. Issues related to technology and processes are, perhaps, less of a challenge than those associated with the human element. For example, Total Place needs to:

- Work with different organizational cultures;
- Address institutionalized barriers to collaborative working often embodied in different employment practices and labor relations policies;
- Deal with conflicting objectives and performance measures; and
- Change existing power relationships—for example, between government agencies — operating at local level and local, democratically controlled bodies.

However, it will benefit from the new central government approach in the UK to assessing the performance of local government (councils) and other locally based government agencies, such as police, health, fire, and rescue. The "Comprehensive Area Assessment" judges performance of all these partner organizations by looking at outcomes for the public rather than focusing on the performance of individual bodies. Taking an adage from the management textbooks, if what you measure is what you get, then this method of measurement should prove a stimulus to collaboration and the adoption of collaborative technologies. It addresses one of the key barriers to collaboration: differing objectives and performance measure for different public sector bodies.

This reflects a recognition that, increasingly, technology is not the limitation to collaborative publicservice delivery. The limitation is found in the culture and structures of public

services, in organizational and human behaviour and in societal norms. Technology can provide a set of tools for different ways of working. It will not provide the will or desire to work differently, a point illustrated in the United Nations E-Government Survey 2008.

Equally clear is that increased collaboration between public-sector providers leads to enhanced public access to information and increased public influence over service delivery and development. Combined with increasing citizen-to-citizen collaboration, facilitated by Web 2.0 technologies, this represents a paradigm shift in the concept of egovernment. A shift from a providerdriven delivery mechanism to a tool for responding to public needs and expectations. It reinforces a model of governance that focuses on the aspirations of citizens not the requirements of traditional public service bureaucracies.

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- 6. www.gateway.gov.uk/
- 7. www.connectingforhealth.nhs.uk/ systemsandservices/gpsupport/gp2gp/faqs/overview
- The "Open Source, Open Standards and Re-Use: Government Action Plan" www.cabinetoffice.gov.uk/cio/transformational_government/open_source.aspx

Overcoming the Silo Trap

By William D. Eggers and John O'Leary Co-Authors If We Can Put a Man On the Moon ...

he silo trap, aka the failure to put all the pieces together, is a major cause of many public sector failures. Creating alignment that crosses boundaries is not easy, but necessary for success.

The heinous attacks of September 11, 2001, shocked America. But they shouldn't have come as any great surprise. As the 9/11 Commission report makes clear, during the summer of 2001, the nation's intelligence warning systems were blinking red—but those warnings were missed. Examining the evidence after the fact, the commission found that various intelligence agencies had uncovered pieces of evidence that, taken together, might have enabled officials to thwart the attacks. But, as the report notes, "the U.S. government did not find a way of pooling intelligence . . ."

The 9/11 Commission report cites numerous instances in which information was trapped within silos. Some of the examples are painful to read. In the summer of 2001, certain FBI intelligence officers learned that an Islamist extremist named Khalid al-Mihdhar, who had been linked to the bombing of the USS Cole in Yemen, had entered the United States, flying into New York's JFK airport on July 4, 2001, A search for Mihdhar commenced. One FBI officer reached out to an FBI agent identified as "Jane" in the New York office, who had access to files containing information on Mihdhar and his possible whereabouts. Within the FBI, however, there are strict rules that create a "wall" designed to keep certain intelligence information from being shared with criminal agents,

and the requesting agent was designated a "criminal agent." The Mihdhar case had been designated as a criminal matter, but the information about Mihdar was in "intelligence" files, and "Jane," according to the commission report, "appeared to have misunderstood the complex rules" regarding information sharing. "Jane" refused to allow the intelligence officer access to the files. As the commission report noted, this meant that operatives familiar with Al Qaeda and experienced in tracking down terrorists were excluded from the search for Mihdhar. After his request for access to the files was denied, the

frustrated officer lashed out on August 29, 2001, in a searing email sent to "Jane":

Whatever has happened to this [request]—someday someone will dieand wall or notthe public will not understand why we were not more effective . . . especially since the biggest threat to us now. UBL [Usama bin Laden 1, is getting the most

Two weeks later, on the morning of

"protection."

September 11, Kalid al-Mihdhar boarded American Airlines Flight 77. which he helped to hijack and then

GETTING BIG THINGS DONE IN

WILLIAM D. EGGERS

JOHN O'LEARY

crash into the Pentagon, killing 125 people. The commission, noting that Mihdhar had been using his real name during the weeks before the attack, concluded that if the investigation had been handled differently, Mihdhar might have been apprehended. The commission felt that his detention might have thwarted the entire operation.

You may be feeling as angry at "Jane" as her colleague was. When hearing of this failure to share vital information, it's easy to assume it stemmed from a turf battle or some other bureaucratic pettiness. But "Jane" wasn't engaged in some foolish power-play squabble. She was simply trying to do her job in an environment steeped in complex rules. How complex? The commission noted: "Everyone involved was confused about the rules governing sharing of information gathered in intelligence channels."

Think about that: Everyone was confused about the IF WE
CAN PUT A
MAN ON
THE MOON...

rules. The rules that limit information sharing and create a "wall" within the FBI exist because if a criminal investigator gains illegal access to information, a prosecutor's case might get thrown out of court and the bad guys might walk. "Jane," in fact, had sought the advice of the agency's lawyers in helping her determine whether she was permitted to give the officer the information he had requested.

Few people understand the challenges of sensitive information sharing within



government better than Michael Wertheimer, who is the assistant deputy director of national intelligence. Since 2005, he has been charged with transforming how the intelligence community gathers, shares, and analyzes information, trying to break down the silos and enable appropriate, effective information sharing. The challenge is that sometimes information should be shared, and rigid rules within an agency can foster an attitude of complete distrust of anyone else in the government or the intelligence community. "It has created that culture that we know as silos of excellence, each agency a selfcontained unit," says Wertheimer.

The silo approach, as 9/11 so painfully demonstrated, isn't terribly effective in an era of global terror threats. To figure out better ways to foster collaboration, Wertheimer looked outside of government and became a corporate tourist, visiting such cutting-edge firms as Google, Industrial Light & Magic, and Pixar. Instead of hanging out with a bunch of spies, Wertheimer figured he might learn something from people who make cartoons. He did. He found that at Pixar headquarters, Steve Jobs had put all the restrooms in the center of the building, often at some distance from work areas. "People hated it," said Wertheimer. "If you have to go

use the restroom, you have to get out of your office, walk all the way down to where the cafeteria in the central area is. [Steve Jobs] was trying to get people to bump into each other to have collaboration." It opened Wertheimer's eyes to just how differently government operated. "We are the reverse on almost everything. Our security policies are designed against collaboration," says Wertheimer.

Inroads are being made. In 2006, Wertheimer helped introduce Intellipedia, a secure, Internet-based collaboration tool that enables sixteen intelligence agencies to share information. In 2008, Wertheimer was instrumental in the launch of A-space, a social networking site for intelligence analysts modeled after MySpace and Facebook. The paradox is that these tools, by allowing for the independent, decentralized distribution of intelligence, actually enhance the effective centralization of intelligence. Rather than rigid hierarchical "channels" of permitted information flow, these are freewheeling "spaces" in which unplanned and uncontrolled exchanges are encouraged. Says Wertheimer, "It is about doing things that you never thought you could do before. It is making connections. It is mashing up...." In effect, Wertheimer is using cyberspace to foster virtual

collaboration in the same way Jobs used physical space. Just how effective this all is remains an open question. The horrible truth about 9/11—that our nation's intelligence agencies had all the pieces of the puzzle but failed to put them together—has demonstrated how dangerous the Silo Trap can be. Armed with that awareness, Wertheimer and the intelligence community are taking steps to counteract the natural tendency toward organizational isolation.

It won't be easy to break through the walls that keep the left hand of government from knowing what the right hand is doing. Some of these walls are built into the design of democracy. There are technical challenges, but those are ultimately surmountable. By far the bigger challenge is changing the organizational barriers and cultural attitudes that permeate the public sector.

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Setting the Right Conditions for Collaboration

By Marti Hearst Professor University of California at Berkeley

Introduction

What are the conditions required for successful collaboration across government agencies? A somewhat recent study by Fedorowicz, et al. (2006), analyzed five case studies of the use of IT in cross-agency efforts to solve vexing problems. This analysis yielded a useful collection of lessons that can help guide our understanding of what conditions should be in place to help ensure successful collaborations.

This article discusses the collaboration modeled by the Federal Web Managers Council. Many of the conditions described by Fedorowicz, et al., are mirrored in the successes of the council, thus strengthening the evidence for that set of principles.

The Case Studies

- 1. California Franchise Tax Board:
 Integrated Nonfiler
 Compliance Program This
 program combined local, county,
 state, and federal information to
 identify non-reporters of income in
 California.
- 2. U.S. Treasury: Internet
 Payment Platform Federal
 agencies and private sector
 vendors created a Web-based
 system for purchase orders and
 invoicing, allowing tracking of the
 orders throughout the life cycle of
 the transaction. The U.S. Treasury
 worked closely with suppliers to
 design and test the system, which
 has been in production use since
 November 2007.

- 3. Capital Wireless Integrated
 Network (CapWIN) City, county,
 state, and federal agencies
 collaborated to improve firstresponder effectiveness. CapWIN
 has more than 5,000 registered
 users from more than 80 public
 safety, transportation, and
 emergency services agencies
 drawn from all levels of government
 in three state jurisdictions.
- 4. CDC's BioSense: Real-Time Disease Symptom

Surveillance City, count, state, and federal agencies collaborated with private-sector hospitals and medical laboratories to develop an early-detection system for disease and bioterror outbreaks. More than 500 entities are using BioSense, including hospitals; federal, state, and local facilities; and the Centers for Disease Control and Prevention (CDC). In addition, nearly 600 healthcare facilities in some of the most populous U.S. cities are now transmitting near real-time data to BioSense.

5. Wisconsin Livestock
Identification Consortium
(WLIC) State agencies,
businesses, and industry
associations collaborated to create
an electronic system to track
disease status of livestock. WLIC
is also contributing to and
supporting the development of the
U.S. Animal Identification Plan, a
national effort led by the U.S.
Department of Agriculture and
industry to create a national animal
identification system.

These interagency efforts are successful in that they are all in use, but the path to that success was not always direct. Fedorowicz, et al., discuss the challenges that such efforts faced, divided into three main categories: political, administrative, and technical.

In terms of political challenges, the authors write that "in most collaborative ventures, the greatest challenges are often rooted in the tug and pull of interorganizational politics. ... These dynamics are often driven by the larger environment in which a collaborative venture is operating - often with a unique combination of circumstances. We found this to be true in each of the five case studies."They also said. "Systems and programs that cross agency lines are rare in governmental circles, where hierarchical structures and long budgetary cycles impede shared functioning."

Nonetheless, the case studies revealed ways to overcome this type of challenge.

One important lesson is that major disruptive events can act as catalysts for collaboration. This applies to natural disasters and human-initiated crises (perhaps not surprisingly), but also to new legislative and regulatory requirements, which can act as catalysts for change by establishing goals, setting timetables, or providing frameworks to mediate disputes among competing interests.

The group found that collaborations in response to change are most workable when the stage has been set by earlier activities. The authors point out that in the cases studied, "prior working relationships forged in response to earlier crises or prior initiatives can help set the stage for future collaboration." They also write that "Effective leaders do not wait for a crisis before they issue their call to action. Instead, they connect the dots of evidence to show affected stakeholders the importance of a proposed interagency solution."

Another lesson found across the case studies was the need to achieve a critical mass of participants and the inclusion of champions holding a wide range of roles. Champions should be both inward- and outward-facing, help establish shared goals, articulate a clear path for action, lobby for external resources, enlist other champions who have the skills they lack (such as public communication), and protect or defend the effort from outside attacks.

Administrative lessons included the need to develop a governance structure to facilitate representation of key relationships among the parties in the collaboration, and the need to develop a long-term business model in which all participants receive benefits outweighing the costs of participation.

Lessons learned about technology focused primarily on data-sharing and dealing with legacy IT systems, but the authors found that technology issues could be worked around and was rarely the sole cause of a collaboration's failure.

The Federal Web Managers Council

Another example of a successful cross-agency organizational structure can be found in the Federal Web Managers Council. The council, convened by the U.S. General Services Administration, consists of Web managers and new media directors from each Cabinet-level agency, as well as agencies with high-profile websites. Among its activities are:

- Managing webcontent.gov, a site that provides a practical guide for government website content and development, including policy requirements and best practice guidance;
- Managing a popular forum, with more than 2,000 members from

- federal, state, and local governments, which provides a venue for asking for and sharing advice about Web content, technology, and policy;
- Managing Web Manager University, a large self-funding educational effort that offers two semesters of courses (in classroom, webinars, and new media talks) on timely topics ranging from "Intro to Podcasting" to "Drupal for Government" to "Best Practices for Search"; and
- Running the annual Government Web Managers Conference, the largest networking event for government Web content developers and managers.

The Council was formed, when the Interagency Committee on Government Information created by the E-government Act of 2002 asked the Web managers to help develop recommendations for federal websites. The strength of the Council came into focus during the Hurricane Katrina disaster in 2005. In the wake of the event, many agencies were posting information about similar hurricane-related topics, some more accurate than others, and much of it duplicative. To ensure that information posted on official government websites was accurate and updated, the Council adopted a stay-in-your-lane strategy for managing information distribution. Agencies and bureaus were assigned topics, and all other agencies that had something to contribute to the topic would link to the main agency's information. For instance, the CDC posted information about Katrinarelated health and safety. If the **Environmental Protection Agency** posted health-related information, it would link directly to the CDC page rather than posting its own version. Council members also agreed to post Katrina-related information at a uniform location on each respective agency's website. Today, the council

is implementing a cross-agency strategy to address the needs of the open government directive, which requires every agency to create an open government Web page describing the agency's approach to meeting the directive's goals and to get public feedback on it.

The Federal Web Managers Council exhibits the strategies suggested by Fedorowicz, et al. It galvanized in a time of crisis but leveraged an existing structure and existing relationships. It includes stakeholders from a wide range of agencies with a wide range of expertise, and a clearly defined way for those stakeholders to contribute to and influence the conversation and decision-making. It has champions who clearly articulate issues and goals, who listen carefully to and value the opinions of the membership, and who negotiate for and aid the membership when they are presented with external challenges. In return, that membership follows centralized dictates under certain circumstances. It has a formal governance structure in the form of a charter, a website, a community of practice, and more generally, a feeling of community. Thus, it is able to function well and quickly when presented with pressing needs, as well as for achieving longterm goals.

Dr. Marti Hearst is a professor in the School of Information at the University of California, Berkeley. Her primary research interests are user interfaces for search engines, information visualization, natural language processing, and social media. Her recently completed book, "Search User Interfaces," is the first text on this topic.

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Preconditions for Successful Collaboration

By John M. Kamensky Senior Fellow IBM Center for the Business of Government

s collaboration the right solution in every case? It depends, says a team of researchers from the University of Minnesota led by Professor John Bryson. In "Designing and Managing Cross-Sector Collaboration; A Case Study in Reducing Traffic Congestion," the team found several preconditions may have been critical to the success of Minneapolis-St. Paul's public/private sector partnership to reduce traffic congestion.

The team found that two views predominate around the use of

collaboration. One assumes that "collaboration is typically always best, and one should start by searching for collaboration partners." The other assumes "organizations will only collaborate when they cannot get what they want without collaborating."The authors concluded this: "Collaboration – especially cross-sector collaboration – is no panacea."

The case study examines how the Twin Cities metro area, after decades of effort, made a major breakthrough in addressing traffic congestion. It required use of a variety of techniques, including congestion-charging, telecommuting, and mass transit, and involved various federal, state, local and regional authorities. While cross-sector collaboration was key to that success, it had been tried before in the area but had not taken hold. Why was this time different?

Bryson and his team found a number of factors were critical to success in this collaboration. Some were unique to the Twin Cities case, but others may be applicable more broadly. In addition, several factors converged, almost serendipitously, to make the collaboration work:

First, the key stakeholders shifted their approach from thinking of traffic congestion as an engineering problem to thinking about it as an economic problem. This led to four new strategies: congestion-pricing, expanding mass transit, increasing the use of technology, and encouraging telecommuting.

Second, the federal government offered more than \$1 billion to pilot traffic congestion projects that would use these kinds of strategies. As Bryson and team observed: "Topdown mandates and bottom-up willingness to collaborate complemented and reinforced one another."

Third, the highly publicized collapse of the Interstate 35 bridge over the Mississippi River in Minneapolis in 2007 was a catalyst for action.

And finally, the champions behind the collaborative approach explicitly addressed five issues that the authors felt were prerequisites to any successful collaboration:

1. Do you understand, and can you build off of, past efforts?

"Organizations and groups seem more likely to engage in crosssector collaboration when singlesector efforts to solve a public problem have failed," noted the authors. Also, they found that preexisting and positive working relationships were an essential foundational element. In the case of the Twin Cities partnership, "a broad array of constituencies had become alarmed by this public problem, developed a shared sense of urgency, and were forming alliances."They realized that historical attempts to solve it had failed and were finally willing to try a market-based tool - congestionpricing - rather than more traditional methods, such as construction or regulation. In this case, they banded together as a last resort because all other approaches had failed.

2. Have you developed effective governance approaches?

Organizing to get things done in a collaborative manner is not easy, largely because it is time-consuming, and it constantly evolves. Players and roles change over time. Typically, a respected and neutral organization and specific individuals should help design and

manage the inclusive process.
Regular meetings among
stakeholders, preferably using
existing forums, are key elements.
In the case of the Twin Cities, the
stakeholders created an Urban
Partnership Agreement Steering
Committee. Before receiving the
federal grant, the committee chose
to maintain loose membership
boundaries and was very inclusive.
It was characterized by fluid and
participatory decision-making
process within an evolving
governance structure.

- 3. Do you understand the roles of key players? The main locus of power will likely shift over the course of a collaboration process. Understanding how power is allocated, at different points in the collaboration process, is important to managing both process and expectations. One crucial political task is framing the issues. As Bryson and team note: "The way issues are framed will determine much of the politics that ensue, as well as the way actors assess costs and benefits of proposals, and construct winning arguments." In the Twin Cities example, politics was the opening of the window of opportunity. Of course, monetary incentives - in the form of a federal grant ¬ helped.
- 4. Can you demonstrate both leadership and competence?

Any collaborative effort will be comprised of a mix of political, facilitative, and technical skills. The mix among them will change over time. Typically, political sponsors have the formal authority to bring to bear in securing political support and resources. The champions often lack formal authority, but they supply ideas, energy, and determination to move forward. In addition, effective champions can both facilitate and frame policy ideas in comprehensible ways to multiple constituencies. Participants in the Twin Cities

effort found that they also need to have a high tolerance for risk and situational ambiguity.

5. Can you create outcomeoriented accountability?

Accountability arrangements, notes Bryson, "can be particularly tricky in collaborations, as the multiplicity of actors and agencies involved often causes ambiguity around the question of 'who is responsible for what?" "However, creating a system that tracks inputs, processes, and outcomes is important. When these are made transparent, the various stakeholders can use this system to hold each other mutually accountable. In the Twin Cities effort, though, participants were nearly unanimous in identifying the Minnesota State Department of Transportation as the agency ultimately responsible for success of the traffic congestion project. While the department created a tracking system, participants found that accountability goes beyond the metrics. Since people are likely to have different views as to what constitutes success, notes Bryson, it is important to pay attention to the role of the media "in terms of building support, providing useful criticism, and helping assure accountability."

Bryson and his team conclude that "collaboration is not an easy answer to hard problems, but a hard answer to hard problems." So if you are facing an opportunity to collaborate across sectors, start by asking yourself these kinds of questions first. They may help you decide if your initiative can meet the preconditions of success.

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A Core Capability for 21st Century Government

By Theresa A. Pardo, Ph.D., Director and Anthony M. Cresswell, Ph.D., Deputy Director Center for Technology in Government University at Albany, State University of New York

ollaboration is something I do when I'm backed into a corner." In this quote, a public safety professional communicates an awareness of just how hard collaboration can be. Research and experience tell us collaboration among individuals is difficult and time-consuming, even when participants are willing. Formalizing collaboration among a group of organizations is even more difficult, particularly when it involves multiple sectors, governmental jurisdictions, levels of government, and policy domains. New public priorities such as open government, as well as increasingly complex public problems in the areas of public safety and public health require new strategies that involve coordinated action among groups of organizations. Engaging in coordinated action requires new decision-making structures and new ways to request and expend resources and to integrate technologies, policies, and processes. The complexity of the changes required is rarely understood and even more rarely planned for.

Over the past 15 years, the Center for Technology in Government (CTG) at the University at Albany, State University of New York, has worked to help governments leverage technology as a tool for creating public value. To achieve that leverage, the delivery and management of public services increasingly relies on complex networks of interdependent organizations. As a result, the heart of our work, both research and practice, has emphasized achieving coordinated action across the boundaries of government agencies. Through this work we have examined the role collaboration plays in multiagency information- and technologyrelated initiatives. As a result, we have developed a new understanding of interorganizational collaboration, particularly among government agencies engaged in sharing information across the boundaries of those agencies and with the public.

That new understanding is based in part on research supported by the National Science Foundation, U.S. Department of Justice, and others. This research looks specifically at cross-boundary information sharing in the context of government, and has led to new models of the complexity of cross-boundary information sharing initiatives. As the focus of a collaborative effort goes from a single agency working to solve a specific internal problem to a multiorganizational effort to create new capability throughout a system or an enterprise, the need for collaboration capability increases (See Figure 1).

Collaboration capability is about working together and making plans and decisions in new ways. We cannot assume that this seemingly simple capability exists when it comes to collaboration across organizations. This capability depends in part on a shared understanding among all the key players of both the goals of the effort and the challenges faced by all the participating organizations. In one information integration effort we studied, representatives of the participating agencies took a full year to create a shared understanding of the problem. They "walked the tracks" through all the constituent organizations' information systems and business processes to create a single shared map of the problem. Only then could they effectively

collaborate on creating solutions. In another case, the many parties seeking to mitigate air pollution in their region formed a joint committee. Before they could effectively collaborate in spite of their different interests and perspectives, the members spent many months creating committee by-laws (http://www.ctg.albany.edu/publicatio ns/reports/jac mitigating). Building collaboration through that process formed the foundation of trust and shared experience needed for many successful subsequent projects. We have seen that collaboration across the individual, unit, and agency levels is often within the skills and authority of government managers to arrange and support. But it is at least a

partially "unnatural act" that requires

taking. The successful effort to create

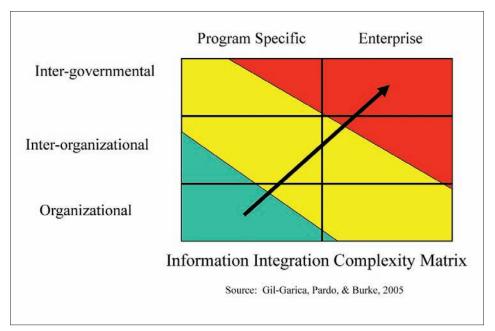
this kind of capability for coordinated

action requires the unique attention

and authority of government leaders.

new skills, perspectives, and risk

Building the capability for effective collaboration may not be sufficient for sustained coordinated effort without support. The collaborative way of working must be institutionalized as an organizational norm and management principle. It must be incorporated as a management strategy within our traditional bureaucratic institutions as well as within our networks. Unfortunately, while leaders may have the unique power to make these changes, many barriers must be overcome. The typical policy environment managers have created, or in many cases inherited, often limits their capability to share authority, to exchange resources, and to jointly and strategically manage enterprise-wide initiatives. To change this, government



executives must understand how policies can support or inhibit collaborative action. They must shape their policy decisions and nurture the capability of governments to create the necessary organizational cultures and systems to sustain effective collaboration across boundaries.

Initiatives we have studied for establishing and maintaining cross-boundary information sharing relationships and structures provide some good examples of how effective collaboration can be created and sustained. The evidence of collaboration capability can be found in specific policies and procedures to support collaboration, and in the quality and effectiveness of

relationships with stakeholders, such as advisory committees. It is reflected in positive relationships among information users and organizational leadership. Collaboration is supported by the provision of specific resources, including staff time, budget, training, and technology. Successes or failures in past collaborative activities can be significant indicators of readiness for future collaboration.

Collaboration-ready organizations have a track record of successful collaboration and actively seek out new opportunities for partnering across organizational boundaries. They have allocation models that respond to the need for cross-

boundary assignment of resources, including money, people, technology, and information. Their leaders support working across organizational boundaries and reward such activities. Low collaboration capability organizations view open dialog as a threat to their interests and power bases. They see collaboration as a form of compromise or loss, rather than an opportunity to enhance their ability to respond to challenges, possibly as a result of bad experiences at previous collaborative efforts. They may avoid or resist initiatives requiring collaboration.

Understanding the public value that can be created through a collaborative way of work and being willing to engage in collaborative efforts is very different from having the organizational capability necessary for collaboration to succeed. These differences must be understood and acted on by government leaders and managers alike if collaboration across boundaries is to be a part of the transformation of government in the 21st century.

Theresa Pardo is the Director of the Center for Technology in Government and Anthony Creswell is the Deputy Director. The Center for Technology in Government is a public-private partnership helping federal and state governments make better use of technology in managing information. For more information go to www.ctg.albany.edu

Essential Collaborative Competencies for Managers

By Sydney Smith-Heimbrock Director, Leadership and Human Resource Development Solutions U.S. Office of Personnel Management

overning through collaborative networks of governmental, nonprofit and private-sector organizations is the new paradigm for public management in the 21st century. To perform effectively in this environment, federal managers need 16 competencies, according to research performed in 2009. These competencies demonstrate the fundamentally different set of knowledge, skills, behaviors, and attributes needed for 21st century governance.

Facilitating Network Creation

Contextual analysis Actively acquires information from a variety of sources to perceive shifts in the policy agenda, and social and economic factors shaping stakeholders' views; understands the broader dimensions of governance challenges.

Network mapping Applies understanding of intergovernmental structures ties and interdependencies to identify the institutions and individuals with a stake in the policy or program outcome; and analyzes actors' resources, competences, and limitations, including constraints imposed by law, regulation, or the organizational culture of their home organizations.

Network building and activation
Uses sound judgment to select and
attract entities to activate the
network; works across sectors to
forge collaborative alliances based on
mutual benefit; designs the network
by building connections across
organizational systems; setting
decision-making parameters and
defining the interactions that will

sustain the entities' collaboration; develops informal reciprocity in the absence of formal rules; identifies the currencies that connect the entities' self-interests.

Focusing on Results

Creating public value Identifies shared problems, values, and objectives among network actors; uses trust and reciprocity to establish an underlying basis for agreement on network goals; continually reminds network actors of goals, and monitors progress and resolves problems in order to attain them; maintains personal accountability for achieving results; and encourages goal adaptations and changes in goal leadership over time based on stakeholder analysis.

Vision Maintains a view of the network's strategic purpose of public value creation; connects collaborative network with public-sector outcomes; reconciles partial and general perspectives across the network; collaborates with others to develop specific objectives based on the broad vision.

Modeling ethical behavior Identifies the network's ethical standards of partnership based on patterns of interaction; finds opportunities to create a climate of openness and trust; perceives others as legitimate, capable, and experienced; challenges unfair or inefficient practices; openly addresses power and inclusion issues within the network.

Managing Network Processes

Network resources management

Persuades and encourages others to commit resources (people, money, expertise, information, technology, equipment) to network goals; identifies capacity needs of network partners, and works with them to assure resource- or capacity-building investments; uses knowledge of federal processes to provide structures, accommodation, logistic support, and other procedural interventions to enable collective experiences.

Information management

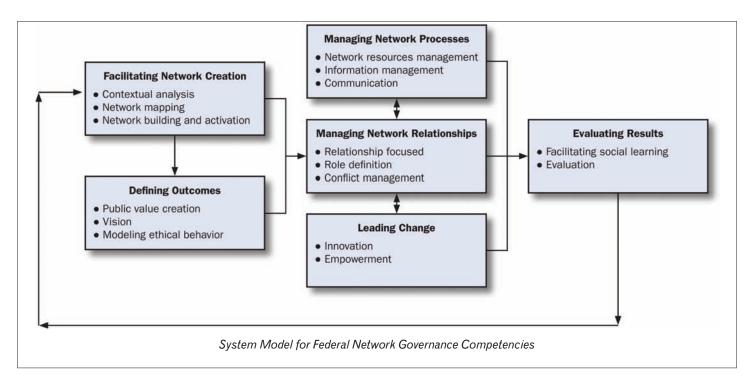
Disseminates information to span boundaries between organizations and individuals in the network; uses principles from information science to establish formal and informal information-sharing channels through technology and face-to-face interactions; uses central stakeholders to diffuse information across the network.

Communication Maximizes the use of communication for meaningful deliberation and decision-making across the network; sets up dialogues and collaborative communication practices to facilitate mutual sharing of information and understanding of the network's collective benefits; actively engages different groups in a communicative process to create a sense of belonging; communicates in a range of styles and modes to facilitate collaboration.

Managing Network Relationships

Relationship focused Uses social network analysis to understand the network's maturity and to identify what relationships are needed to accomplish network objectives; uses formal and informal interpersonal processes, including an understanding of individual motives, to build, sustain, and strengthen relationships as needed to accomplish network goals; continually reappraises the accountability and legitimacy of relationships with other stakeholders.

Role definition Collaborates with others to enable appropriate roles to



emerge among network actors; negotiates new roles as collaboration outcomes produce shifts in the environment; manages through the ambiguity and inherent tension across different role relationships and organizations; recognizes and accepts the federal manager's most appropriate role – manager or participant – based on the health of the network at any given time.

Managing conflict Pays attention to interpersonal and interorganizational dynamics in the network; creates a collaborative environment that embraces different methodologies and cultures for decision-making; effectively deals with individual and social concerns. and collaborates with others to identify the interests of different stakeholders: values conflict for the purpose of gaining new perspectives and assuring competing public values are considered: creates clear and transparent mechanisms for channeling conflict, when possible, using dispute resolution techniques.

Leading Change

Innovation Understands when network goals and dynamics present

opportunities for exciting and innovative combinations among people and organizations; uses traditional resources in nontraditional ways; teaches others to adapt to changing conditions; reframes problems to create new solutions; questions conventional approaches.

Empowerment Negotiates own and others' legitimacy as contributors to network relationships and outcomes; creates a shared sense of responsibility for producing valuable and worthwhile outcomes; provides the opportunity for network actors to use skills and abilities toward shared goals; watches and corrects for social dynamics that impede network actors' active participation; ensures network members have the confidence, information, and support they need to sustain their connections.

Evaluating Results

Facilitating social learning

Recognizes the learning needs and opportunities for both the members and the network as a whole; creates situations in which people can learn collectively from their experiences and environmental changes to adapt network processes; uses social

learning to build trust and reciprocity as levers of collaboration; nurtures network self-adaptation mechanisms.

Evaluation Promotes the use of information from a variety of sources to assess the network's effectiveness in producing public value; uses a range of performance criteria that measures outcomes for service recipients, network actors, and organizational participants; analyzes and reflects on existing network processes to identify opportunities for improvement, and acts on these opportunities; uses evaluation as a learning tool.

A visual depiction of network governance competencies as a system model shows the phases of network governance, and the integration of all competencies into an ongoing system of mapping, organizing, managing, and evaluating networks to produce public value.

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Build Your Organization's Capacity to Collaborate

By Tamara Erickson Managing Director nGenera Collaboration Services

organizational environments that facilitate and encourage this identified factors that enable he ability to share ideas and collaborative activity. information on a consistent collaboration and a wide variety of basis - to collaborate - is one approaches that successful **Designing and Building** of the most important capabilities for organizations are using to a Collaborative Organization contemporary organizations. It is an enhance essential component of an Building an organization's organization's ability to address capacity to bring ideas complex challenges and avail of together on a consistent emerging opportunities. While an basis hinges on ensuring individual's personal knowledge, that multiple individuals can experience, and exposure can and will exchange knowledge generate new ideas, more often, freely. One of the creative leaps are sparked by two or primary more people working together, each contributing unique competencies, perspectives, and experiences. An organization that has a high probability of innovating on a consistent basis is one that has a strong capacity to collaborate Becoming a collaborative agency or department doesn't just happen, and it can't be mandated. In partnership with the London Business School, nGenera Collaboration Services recently completed responsibilities of a contemporary leader is to a large research program designed to identify the set the stage for that kind-of characteristics of organizations exchange. that were successful at these **Encourage the development of** collaborative activity. With factors. strong, trust-based relationships extensive data from teams from Surprisingly, the Make significant and thoughtful around the world, we found that

research found that many

traditional leadership approaches,

such as compensation incentives, had

no discernable correlation with

successful collaboration.

Building organizations that have a

architects than field marshals. Unlike many desired business outcomes, collaboration can't be directed from

the top down. It requires discretionary

effort - the commitment of individuals

from the bottom up to share their best ideas. A leader's challenge is to build

strong tendency to collaborate requires leaders who think more like

investments in programs and

processes that will facilitate the

a lack of trust among individuals,

development of personal relationships

throughout the organization. If there's

many of today's processes and

practices - and the culture within

collaboration. The research also

many organizations - don't encourage

productive collaboration is unlikely. Approaches can vary widely, including:

- Events to give people opportunities to meet;
- Technology to allow work groups to communicate easily;
- Physical architecture to provide informal space for colleagues to congregate;
- Organizational design to create units of a size that permit people to know each other, understand the whole, and eliminate the need for excessive control; and
- Process or workflow design to consider relationship formation by bringing people together regularly during the process.

Invest in networks around innovation priorities Collaboration requires an investment of time and effort by the people involved, and not all tasks require it. If the approach to be taken is well-understood or the task itself is relatively unimportant, it is likely that the investment required for collaboration will have limited or even negative return. Leaders should determine which parts of the organization need to exchange insights and whether the collaborative capacity among members of those groups is strong. Do the right people know and trust each other?

Select people who like to collaborate If collaboration is important to a program's success, gauge an individual's preference for doing so as part of the employee selection and promotion processes.

Create a "gift" culture Leaders should model collaborative behavior

by investing personal time to teach and mentor others. Collaboration is encouraged by an organizational culture in which people freely give their time to help colleagues learn. Visible examples of senior leaders generously helping and learning from others are powerful ways to spread this behavior.

Strengthen people's ability to resolve conflict and hold meaningful conversations
Research has shown that one of the biggest obstacles toward productive collaboration is the inability of individuals to hold constructive, open

individuals to hold constructive, open conversations. Provide training to develop individual skills and establish constructive habits.

Leverage strong relationships within the organization When new CEOs join an organization, they often bring a core team of trusted colleagues with them from their former firm. This practice is one that can be valuable at all levels of the organization. Consider transferring small intact groups of employees so that they begin each new job with already formed relationships.

Operate as a community of adults Collaboration requires individuals willing to assume personal responsibility and invest discretionary effort. Set the tone for this type of adult behavior with your employment practices. Establish practices, particularly for access to and handling of sensitive information, that signal the organization's trust of

Make sure processes are efficient, tasks are well-managed, and roles are clearly defined Collaboration is seriously

employees.

compromised by processes that waste participants' time, and by unclear and ambiguous role definitions that force people to parry over authority and control. The leader's responsibility is to provide clear, well-structured roles.

Leave the approach itself to the discretion and creativity of the team Tasks that are too tightly prescribed inhibit collaboration and innovation. Why bother, if there's little latitude in the approach? Think of the emergency room in a hospital as the model of clear roles and ambiguous tasks. The role descriptions among the team members are precise. When beginning to treat a new patient, there's no need for discussion about who wants to perform surgery that day. However, the nature of the challenge — what will be wrong with the patient, and, therefore, what steps will be required for treatment — is unknown, and the precise steps required are, therefore, ambiguous.

Although collaboration can't be forced, leaders have significant roles to play to create environments with the capacity to encourage the free exchange of ideas and information.

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Feds Collaborate to Make Social Media Legal for Mission-related Outreach

By Bev Godwin Director, New Media and Citizen Engagement GSA Office of Citizen Services and Communications U.S. General Services Administration

he White House Open Government Directive specifically calls for federal agencies to use emerging technologies to "open new forms of communication between a government and the people." Furthermore, the directive says, "It is important that policies evolve to realize the potential of technology for open government."

No one knows this better than the people who run the various federal Web sites. They have been trying for years to overcome outdated legal and regulatory barriers that have kept agencies from using the new forms of communication that were readily available to individuals and commercial interests. These impediments barred agencies from, among other things, using social media tools for mission-related purposes, such as public outreach, citizen engagement, personnel recruitment, training, and ideageneration. But President Barack Obama, on his first day in office, called for agencies to "use innovative tools, methods, and systems to cooperate," making it clear he expected the government to become quickly adept at using social media and other cutting-edge technology.

Taking a cue from the president even before the directive was issued on Dec. 8, a group of public servants recognized the need for concerted action to enable agencies to comply with the directive. They would tackle the legal and regulatory barriers head-on. They began by addressing the concerns that prompted legal counsel in many agencies to restrict federal employees from using free online tools

such as YouTube, Facebook, Twitter, and Ideascale to interact with the huge online audience.

Terms of Service Agreements

The first issue the group took on was the terms of service that providers of free social media require users to accept before accessing their service. Their no-cost tools for social networking, blogging, and dialoguing would give the government the potential to reach and to hear from a nearly unlimited audience. But the small print in many of the providers' terms of use contains provisions that federal agencies cannot, by law, agree to. Issues with terms of service, on the face of it, were an obstacle to the managers of federal Web sites who wanted to expand their ability to communicate with the public.

To lift this roadblock, a coalition of federal Web managers and lawyers from across government, led by the GSA Office of Citizen Services, enlisted the help of enthusiastic attorneys in their agencies and the White House Counsel's Office. Collaborating on language that would accommodate both operational and legal requirements, the coalition entered negotiations with social media providers. The objective was to get providers to amend their standard terms and conditions to respect the unique status and needs of the federal government, to agree on standard language that all agencies could use with minimal tweaking to meet their own needs.

By February 2009, the coalition had an agreement with You Tube. The U.S.

government You Tube channel was launched, and agencies immediately began posting their videos on the site. Since then, 86 agencies have posted videos on You Tube, and millions of You Tube viewers can access official videos from across government. Within its first 120 days, the U.S. government You Tube channel received 176,000 views from more than 13,000 subscribers and continues to grow at a rate of 7 percent per month.

The group moved on to other popular social media providers. Agreements have been negotiated with 33 providers, including Facebook, Twitter, and Wikimedia. The agreements, which address most of the common concerns of agencies using social media, are posted on GSA's online cloud storefront at www.apps.gov. By using these agreements, the attorneys for specific agencies will not have to start from scratch in negotiating acceptable terms that comply with their own policies for the use of social media, or their specific needs, expectations, and practices. To date, there have been 165 terms of service agreements signed and 651 uses of applications. Agencies only have to sign the terms of service once, and then multiple instances of the application can be used.

While the terms of service amendments resolve the major legal issues of the sign-up process, clarify expectations, and set the stage for productive use of these services, agencies still must comply with laws and regulations on security, privacy, accessibility, records retention, ethical use, and other agency-specific policies and requirements when they use the tools. However, the task of conducting



this legal review has become significantly easier.

The success of the terms of service initiative has attracted the attention of far-seeing social media providers, who want to add their products to the lineup on apps.gov. The coalition has posted a model agreement vendors can refer to in determining whether their terms of service are compatible with federal law. It lists the points, issues, and concerns that typically arise in standard terms of service and are problematic for federal agencies, and suggests replacement language that would be acceptable to most federal agencies.

Negotiating these terms of service has created a cost-effective way for all agencies to meet the requirements of the open government directive. They now have federal-friendly tools available for free for social networking, dialogs, blogging, and other means of online interaction.

Open Government Dialogues

The significance of this impact was demonstrated within weeks after the Open Government Directive was

issued requiring federal agencies to put a process in place within 60 days to engage the public online. At that point, only a few agencies had any experience with public dialogues. They all had many unanswered questions about how to do it.

The GSA Office of Citizen Services created a Center for New Media and Citizen Engagement to help agencies throughout the federal government comply with the directive and its very aggressive timetable. The first step was to identify a tool that could be modified by every agency, could be put in place quickly, and would be easy to learn to use. IdeaScale, one of the providers that had amended its terms of service, offered a product that agencies could use to engage with the public. With a quick review of the tool's capabilities and acceptance of the amended terms of service, GSA was able to get it up and running quickly. Training was conducted free for all agencies through GSA's Web Manager University. As a result, all but one of the major departments adapted the IdeaScale tool and launched their public dialogues by the 60-day deadline. The out-of-pocket cost of this

major public-facing initiative totaled about \$10,000, significantly less than individual agencies would have spent if they had had to seek out the expertise and infrastructure to stand up their own public engagement sites. The consistency of using the same approach across government was an added benefit.

As the Open Government Directive states, "Collaboration improves the effectiveness of Government by encouraging partnerships and cooperation within the Federal Government, across levels of government, and between the Government and private institutions." The terms of service negotiations show just how important this kind of collaboration is to the government's ability to function well in the Internet age.

Bev Godwin directs the Center on New Media and Citizen Engagement in the Office of Citizen Services at GSA. Bev recently returned to GSA after a 6-month detail to the White House Office of New Media. Prior to these posts, Bev most recently served as Director, USA.gov and Web Best Practices at GSA.

Government and Industry Collaborate to Modernize VistA

By Edward Francis Meagher SRA International Chair, Industry Advisory Council VistA Modernization Project

he Veterans Information **Systems Technology** Architecture (VistA) is the largest, most comprehensive, fully integrated electronic health information system in the world. It is also the best. It was designed and built by Department of Veterans Affairs' doctors, nurses, and technology professionals over a 20year period. More than 8 billion U.S. tax dollars has been spent building, improving, and operating this system. Each year it serves more than 5 million veterans, supports more than 200,000 medical personnel at 163 medical centers, 850 clinics and 135 nursing homes. VA hospitals using VistA comprise nearly half of all U.S. hospitals that fully implement an electronic medical record. VistA provides each of the 5 million veterans with a complete, comprehensive, longitudinal electronic health record. It is a national treasure, and it is owned outright by you and me.

So you might wonder why the rest of the country's health care system isn't using this program, which is available free to anyone who wants it. Well, there are several reasons. From a technology perspective, it is a fact that while VA continued to extend and improve its capabilities during the past 10 years, it failed to refresh the underlying hardware and software. At its core, VistA is based on antiquated technology. It is difficult and expensive to maintain and is increasingly more challenging to enhance it . From a business perspective, while free to own, it is expensive and complicated to install, modify, and operate. So the obvious

question to ask is, "What would it take to modernize VistA so that VA, as well as the larger health care community, would have access to the best aspects of the multibillion dollar investment in VistA, while migrating it to a state-of-the-art, open systems, public domain environment?"

If this were easy or straightforward, it would have happened already. I liken it to a known vein of gold buried under a mass of rock and rubble. There is abundant evidence of numerous prior and ongoing attempts to mine this treasure, but no one has been successful yet. The one consistent thing about all of these efforts has been the lack of coordination, cooperation, and collaboration.

In late 2009, Roger Baker, the new CIO at VA, who most clearly can be said to own the problem of modernizing VistA, reached outside government, to the American Council on Technology and its Industry Advisory Council, for assistance. He challenged ACT/IAC, representing the government-industry IT community, to fulfill its stated charter by "providing an objective, ethical and trusted forum where government and industry exchange information and collaborate on technology issues in the public sector." Specifically, Baker asked IAC, which represents more than 500 IT companies that work with the government, to convene a panel of business and IT professionals to make recommendations on how best to move forward with modernizing VistA. He challenged the group members to put their corporate or proprietary interests aside and respond as IT professionals and citizens.

ACT/IAC has taken up the challenge in the spirit it was offered. We assembled a representative group of 42 industry professionals from 42 companies who meet once a week and have been hard at work since November 2009. We are focusing on whether VistA can be deployed more broadly, the most appropriate model and strategy for deployment, and the potential impact on industry and the health care community. We have accepted the challenge and are committed to providing our recommendations to the VA CIO by April 2010.

I am truly impressed by the knowledge, skill, and enthusiasm of this committee and the willingness to embrace the challenge as proposed. It is truly staggering what can be accomplished when skilled professionals lay their own parochial interests aside and apply their knowledge and experience to this difficult public task as citizens first. It is genuinely inspiring to see large and small corporations provide these valuable resources to the task, not in hopes of furthering their own corporate goals but in the nation's and our veterans' best interest.

Progress in a collaborative- and consensus-based environment is a challenging task at any time. In a situation where difficult issues and aggressive timelines are involved, it is truly daunting. But we are learning from each other and with honesty, goodwill, and the realization that we are acting on behalf of the rest of our industry, our nation's veterans, and the citizenry of this great country, we are truly inspired to provide a worthy response. We hope the VistA project itself will be an inspiration for other federal agencies seeking to update aging IT systems and software.

Edward Meagher currently serves as the Director of Strategic Initiatives for Health Affairs with SRA International's Global Health Group. He previously served as the Deputy Assistant Secretary for Information Technology and Deputy CIO, and CIO for the Department of Veterans Affairs



Crossing Boundaries to Reach the Michigan Business One Stop

By Kenneth D. Theis CIO and Director, Department of Technology, Management & Budget State of Michigan

obs and economic development are sustained Michigan priorities. Lasting solutions to these driving issues must be effective, sustainable and agile and flexible enough to apply to changing circumstances and for varied crossboundary stakeholders and jurisdictions. The Michigan Business One Stop demonstrates how our process redesign and collaboration with the broad business community helps to transform the State government and make it possible for old and new businesses to succeed and create jobs for the people of Michigan.

Michigan Business One Stop, launched in March 2009, is an online service that guides users who want to start, operate or change a business. Business owners can apply for or renew selected permits and licenses, file reports and pay taxes and fees using a consolidated online payment capability. They can input their business data into a single profile, and use a single statewide ID. Information is shared across state departments with one, easy epayment system. Businesses can simulate business decision-making online and track transaction status in a new, paperless environment. Its six integrated service elements are:

- Business Web Portal Start a business and operate a business
- Customer Assistance On-line

help for navigating and applying for licenses, and access to other support services through an extended hour call center.

- Business Ombudsman Neutral resource to provide solutions between business, industry and state, with a direct reporting relationship to Governor' office
- Business Certification
 Program Focused on providing customer services and developing new levels of partnership between State employees and the business community.
- Business Permit Process
 Initiative Reduces the number of permits and permit processing time

 Business Navigator A SWAT team of agency representatives assisting with permits and other issues.

The project was first announced in Governor Jennifer Granholm's 2008 State of the State address and, for key reasons, has emerged as a highly effective and transferable model of project management and crossboundary solutions. Business One Stop succeeds because it is a gubernatorial priority embedded in a broader government transformation and streamlining effort and because it is driven by a sound and comprehensive project management approach. Its strength is that it has a problem-defined design that builds from a businessman's needs rather than the government's preconceived solutions. It provides exceptional lessons on overcoming sharedservice barriers and in providing effective business and technological solutions.

A Highly Collaborative Project

None of this would have been possible without the upfront cooperation of numerous state government agencies and more than 100 business owners, business associations and local governments, who joined in one of the state's most collaborative projects to date.

Creating Michigan Business One Stop required an intensive focus on process redesign and automation, but what makes it work is a change management process that involves the full range of stakeholders and has a formal management process supported by a matrix organization of stakeholders. The Governor's Office was the executive sponsor; a Business Operations Committee, an Advisory Business Focus Group and Policy Steering Committee provided guidance, and the State Budget Office worked with Departments to

incorporate base-line funding in their budgets. The Department of Information Technology and 10 business service agencies gave input from within the State government. External input came from the **Government Performance** Improvement Initiative and the Council of Michigan Foundations, consultants, business focus groups, the Small Business Association of Michigan, the Small Business Technology Development Center, and major business associations representing manufacturers, retailers, ethnic businesses, chambers of commerce and those with economic development and technology interests.

As one of the stakeholders, the leadership in the State Legislature was briefed on Michigan Business One Stop. When statute changes are required to either eliminate or streamline a permit or license, legislators will be able to connect these requests with the purpose and direction of One Stop. The State Attorney General participated in crafting language for data-sharing agreements between the departments.

To demonstrate the overarching advantages of the new Michigan Business One Stop, agency benefits (e.g. reduced data entry costs) were systematically documented. A matrix organization was established for creative resourcing, minimizing the impact of stretching resources by staffing for short periods of time (i.e. one-year temporary reassignments). Outreach to the stakeholder groups and to government agencies and the public was critical, so we devoted attention to understanding and communicating its value. This included awareness sessions (lecture style) with all the affected agencies, a biweekly newsletter, a user group that reviews portal changes and recommends improvements, and

monthly briefings with agency leaders. We kept our pulse on customer satisfaction using customer surveys and a dashboard with use rates and customer satisfaction measures.

Success Factors and Overcoming Barriers

In any large transformation there are obstacles and challenges; this project is not an exception. We continue to identify issues, opportunities and tools to overcome classic hierarchical, tier and industry barriers to cross-boundary sharing. The critical success factors for this project have been collaboration and following cross-enterprise and cross-jurisdiction guiding principles, including:

- Obtaining leadership support
- Establishing effective system governance
- Encouraging sustained stakeholder participation
- Gaining external expertise
- Developing an implementation plan with concrete deadlines, and
- Sound architectural, system and application analysis and design.

As we continue to refine and strengthen this new business tool, the Michigan experience offers lessons on collaboration, design, partnership, governance and management practices that can both maximize cross-boundary shared service benefits as well as minimize risks. The elements of our approach are reproducible by governmental units seeking cost savings, operational efficiencies, and increased effectiveness.

Ken Theis has been the Chief Information Officer from the State of Michigan since 2007.

Data Sharing Began Geospatially

By Rob Dollison, Dan Sandhaus, and Sam Wear Geospatial One-Stop

Introduction

The geospatial community has been a leader in collaboration and sharing of government information. These efforts include establishing standards for data exchange, creating data clearinghouses, and working to develop partnerships for the creation of local, state and national data sets. As an extension of these efforts by the geospatial community, the Geospatial One-Stop project created a national geospatial data catalog and Web portal (www.geodata.gov), which will provide direct access to data in the future, thus helping to provide ways for the ingenuity of America to take advantage of that data in new and exciting ways.

Initially, the goals of the project were to facilitate the establishment of data exchange standards in order to better enable government-to-government geospatial data sharing, to provide a public gateway for improving access to geospatial data in the United States and promoting partnerships for the collection of new data. These goals of better access to geodata directly complement new activities to improve access to all federal data and improve the "data Web."

The data.gov website was launched in mid-2009 to increase public access to high-value, machine-readable datasets generated by the federal government and make government more transparent. When data.gov requested data, the federal geospatial community responded by supplying tens of thousands of geospatial records. This response leveraged existing capabilities and components of the Geospatial One-Stop project and drew from its rich store of

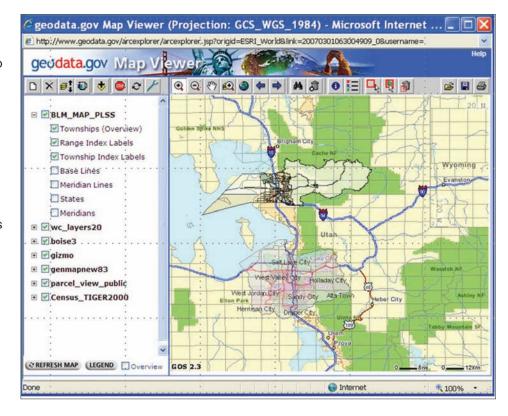
geospatial data resources., thus avoiding duplication and redundant storage of data records. The data sharing between the Geospatial One-Stop project and data.gov applied new Web service technologies that made the Geospatial datasets easily accessible and eliminated the need to create a separate data catalog for data.gov.

As a priority of the Open Government Initiative, data.gov increases the ability of the public to easily find, download, and use federal datasets. It provides descriptions of the federal datasets, information about how to access the datasets, and tools that leverage government datasets. Its primary goals are to improve access to federal data and to expand creative use of the data beyond the walls of government

by encouraging inventive use of the datasets in ways the data owners might not have envisioned.

The Geospatial One-Stop project data catalog includes data from federal, state, tribal, and local governments, universities, and the commercial sector. Federal geospatial datasets must be approved by an agency's CIO before being shared with data.gov. As of this writing, about 167,000 records met these criteria.

The response from the geospatial community and the Geospatial One-Stop project was so strong that data.gov created a separate geodata catalog section to support approved federal geospatial datasets. Currently the geodata catalog holds the largest collection in the data.gov website.





Geospatial One Stop—a National Geospatial Data Catalog

The Geospatial One-Stop project was built to address the need for a national comprehensive geospatial data catalog: a single location where any user could go to find geospatial data in any location within the United States, avoiding the need to search the many Web sites published by individual agencies and entities. Managed by the U.S. Geological Survey, the portal was created as a Presidential e-Government Initiative to enhance government efficiency and improve citizen services.

The portal provides easy access to information that supports many different government lines of business, including homeland security, emergency response, environmental protection, transportation planning, economic development, land management, and public health and safety. Users discover geospatial data they can use in their own projects to perform spatial analysis, modeling, or visualization. Users can also find partners to collaborate on data acquisition activities through the GOS Marketplace.

The portal contains thousands of detailed dataset descriptions and links to map services, online mapping applications, downloadable datasets, catalog services, map images,

clearinghouses, map files, and more. The dataset descriptions are submitted to the portal by federal, state, tribal, and local government agencies; colleges and universities; individuals; and companies. The collection continues to grow, exceeding 325,000 entries as of December 2009. As the catalog becomes more comprehensive and improves, it also facilitates data discovery through integration with data.gov, and its utility as a one-stop portal for finding geospatial data for the United States continues to grow.

Map services provide a new and powerful means for intergovernmental data sharing in support of day-to-day business functions. Past data sharing efforts were "file" centric and often very labor intensive, requiring the downloading or "exporting and importing" of datasets. Todav's evolving map service and viewer technologies, usually require only a web browser and no local client software, and enable governments at all levels to dynamically share (or "fuse") entire agency data catalogs with collaborating agencies. Federal and state map services can be combined with data-rich local government map services which are commonly developed from authoritative, high accuracy 100- and 200-scale base maps. Key metadata elements which identify the map

service URL, map service name, or in the case of a WMS, the GetCapabilities statement enable users to connect to the "live" map services. Geospatial One Stop serves as a portal hosting metadata records for hundreds of federal, state, and local government services.

The Geospatial One-Stop project has been the leading initiative in government geospatial data sharing for the past five years and today it is also evolving to be an important component of the Obama Administration's open government initiatives.

Future integration with data.gov, its policies, and new shared capabilities, will improve the quality and accessibility of geospatial data and support the innovations of the next generation of mash-ups and new applications.

Rob Dollison is the Geospatial One-Stop Project Manager and the National Map Digital Services Manager. Dan Sandhaus is the Geospatial One-Stop Assistant Project Manager. Sam Wear is the Gepspatial One-Stop Local Government Liaison and Assistant CIO for Westchester County, NY GIS.

EPA's Environmental Exchange Network

By Lisa Schlosser, Chief Information Officer and Mary McCaffery, Senior Advisor to the Assistant Administrator Office of Environmental Information U.S. Environmental Protection Agency

PA embraces an open, collaborative, and participatory culture, allowing us to execute our mission to protect human health and the environment for all Americans effectively.

The mission requires that we collect and share reliable, quality data to support each of EPA's seven mission priorities:

- Taking action on climate change;
- Improving air quality;
- Assuring the safety of chemicals;
- · Cleaning up our communities;
- Protecting America's waters;
- Expanding the conversation on environmentalism;
- Working for environmental justice; and
- Building strong state and tribal partnerships.

The challenge for EPA has been this: how to collect and exchange environmental data with our critical partners and stakeholders in a costeffective manner, while always ensuring the integrity of the data. EPA took the initiative in 2001 to address this challenge by creating the National Environmental Exchange Information Network.

What Is the National Environmental Information Exchange Network?

The Exchange Network is a partnership established to support better environmental decisions through improved access to, and exchange of, environmental

information. The Exchange Network comprises three interconnecting components: a collaborative, inclusive governance structure; processes and standards for exchanging data; and a technical architecture based on a common set of shared services that provides the technological foundation for data exchanges.

The governance structure, named the Exchange Network Leadership Council, includes executives and senior leaders from states, tribes, and EPA national program offices, who collaboratively determine the principles, scope, strategy, and activities related to the exchange and publication of environmental information. In addition to governance, the network covers shared processes, tools, and services that help environmental agency staff integrate, analyze, and report data, and data and technology standards that allow for data to be integrated regardless of the technology. The motto of the network is "build once, use many times." In the Exchange Network, plagiarism is not only allowed, it is encouraged. EPA has funded development of the network through an innovative, competitive grant program that began in 2002.

What Is the Business Value of the Exchange Network to its Partners?

In the nine years since its inception, the Exchange Network has evolved from a cutting-edge technology solution to an integrated component of the EPA business and technical architecture, with more than 60 regulatory data flows from states and



regulated facilities currently using this model. Implementation of the network has catalyzed the transition from paper to electronic environmental reporting, eliminated dual data entry in many cases, provided for automated errorchecking and validation, and streamlined business operations. As a result, the Exchange Network has reduced data management costs while providing higher quality and more timely data to decision-makers. An independent study showed an average annual return on investment for participating states that ranged from 15% to 61%. Equally as important, the Exchange Network has resulted in improved access by the public to high-value environmental

Environmental Exchange Innovation – The Outcome of the Exchange Network

The Exchange Network has inspired creativity and innovation throughout its community of stakeholders. Some examples of this innovation include:

The State of Massachusetts
Department of Environmental
Protection – MassAir: The public has
a right to know about the
environmental conditions in their
communities. To reduce costs and
increase efficiency, Massachusetts
integrated its air quality data
internally and used the Exchange
Network to automate data quality



exchange network

sharing information for a cleaner environment

assurance processes and provide real-time air quality data to the public.

- **EPA Water Quality Exchange** Access to comprehensive water quality information is indispensable for managing and protecting water resources. However, timely and accurate information can be difficult to come by because water monitoring data are collected by a wide range of organizations with different information systems that are often incompatible. The Water Quality Exchange replaced a distributed database that was cumbersome and expensive to use and maintain. The standards and simplicity are already paying enormous dividends. New contributors are joining the Water Quality Exchange fold and filling gaps where data were previously unavailable. For example, Wisconsin has added 18,500 monitoring locations and more than 1.6 million results since implementing the Water Quality Exchange. Similarly, Texas added 8,500 new monitoring locations and more than 3.5 million results.
- Multiple States –
 Homeland Emergency
 Response Exchange When
 events such as tornados,
 earthquakes, fires, floods, and

explosions occur, first responders need timely access to quality data such as the location of chemical storage facilities and the types of chemicals stored. Often, the lack of access to data that reaches across state and agency boundaries prevents emergency response personnel from developing comprehensive response plans, which may leave populations vulnerable to unknown dangers. To address this need, environmental agencies from Nebraska, Iowa, Kansas, and Missouri sought a means to efficiently and securely share reliable information among emergency responders and planners. These states used the Exchange Network to create the Homeland Emergency Response Exchange. The participating states publish data useful to emergency planners and responders on their secure Exchange Network nodes, allowing for access to near realtime data in the event of an emergency. In the Exchange Network spirit of build once, use many times, numerous other states are now deploying Homeland Emergency Response Exchange.

Reuse for FederalReporting.gov The Exchange Network model was adopted for reuse by the Recovery, Accountability, and Transparency Board established under the American Recovery and Reinvestment Act of 2009. Using the Exchange Network concept and underlying services, the board was able to implement a federalwide reporting capability for more than 60,000 users to collect more than 130,000 Recovery Act reports in less than five months.

Collaborate with Us

The Exchange Network, from a technical standpoint, is composed of standards-based services that can be reused by any organization that has a requirement for data exchange. In today's environment of an increasingly more open government, it is especially critical to collect and share data with numerous stakeholders and continue to include our most important constituency – the public. The Exchange Network provides a cost-effective solution to meet this need.

Lisa Schlosser is the Chief Information
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Protection Agency and Mary McCaffery is
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Administrator, EPA Office of Environmental
Information. Learn more about the
Exchange Network at
http://www.exchangenetwork.net/index.htm

ParticipateDB

By Tim Bonnemann Founder and CEO Intellitics Inc.

uring the past couple of years, I have had the opportunity to attend a variety of conferences and events related to public participation (the process of engaging citizens in community problem-solving and decision-making). Interest in the use of technology, particularly the Internet, has been growing steadily during this period, and the opportunities and experiences in this area have been the subject of many discussions.

In these conversations with practitioners, software designers and researchers from the private and public sectors, the need for a comprehensive list of all the e-participation tools available emerged as a common theme.

That is the simple idea behind ParticipateDB (http://ParticipateDB.com), a collaborative catalog for online tools for participation, often referred to as tools for Web-based engagement, eparticipation, online deliberation, etc.

The site launched in September 2009 and is currently in closed beta.

The Challenge

While public participation is at the core of our democracy, e-participation, as it is commonly referred to, is still a fairly young and emerging field with a much smaller and incomplete body of knowledge, and a tool landscape that can best be described as fragmented, if not confusing.

There is an almost overwhelming variety of tools and services available today that can be, and have been, applied in the context of public participation. Some of the more established tools were designed specifically for the purpose of eparticipation, while others, such as blogs, wikis, Twitter, and Facebook, are more generic and just happen to also support certain participation activities.

In addition, there is a considerable long tail of experimental applications and solution approaches covering different countries, languages, and participation areas, most of which never rise out of obscurity. No matter what tool is being used, information about actual implementations is often incomplete, distributed, or simply unavailable.

This poses a challenge that is twofold:

- On the demand side, practitioners often have very limited awareness of what's available, what works, and what doesn't, making it difficult to choose the right tool for the job.
- On the supply side, even some of the most innovative tools fail to get the exposure they need in order to gain enough traction to be able to validate their concepts and ideas through actual usage.

The Solution

ParticipateDB is intended mainly for professionals involved in the field of public participation (practitioners, tool builders, researchers, facilitators etc.) as well as people from neighboring communities (civic engagement, activism, e-learning, politics etc.).

ParticipateDB currently consists of three main content categories: tools, projects, and references.

Tools ParticipateDB defines tools fairly broadly as any kind of information and communication technology that is being used in or being developed for the purpose of public participation. In today's world, the majority of tools will likely be Web-based software applications. However, other ICT-based approaches (e.g., use of mobile phones, text messaging, etc.) are included, as well. The entries collected so far range from integrated e-consultation solutions to generic social media applications such as Twitter, Facebook, YouTube, or Flickr.

Projects A project is generally defined as a temporary endeavor – meaning it has a defined beginning and end date – undertaken to create a unique product or service. In the case of public participation, this may include certain deliverables informing the

decision-making process or, ultimately, the decision itself. For the time being, ParticipateDB also includes examples of ongoing participation efforts, often called programs.

References A reference is any kind of related information available on the Internet that can provide additional context regarding the tools and projects covered on ParticipateDB. For example, this may include product brochures, user guides, video tutorials, white papers, interviews, news reports, case studies, or any other kind of research. While Participate DB will eventually produce original research to describe tools and projects, the site will not reproduce any of the more in-depth work that other resources already provide. Instead, existing resources, particularly case studies, will be referenced as external links.

The Road Map

The core feature set scoped for ParticipateDB's alpha phase was completed in December 2009, and a first round of seed content has been added.

As the number of tools, projects, and references reaches critical mass, we see plenty of opportunities for the site to evolve in interesting ways, and our intent is to develop these opportunities in close collaboration with our contributors, as well as other organizations in the field.

We are just beginning to understand how we can use technology and the Web for participation. The list of challenges is long, and a lot of work remains to be done. In order to grow the field as a whole and to spur innovation, it will be crucial to better connect the practitioners who best understand the challenges with the innovators who can build better solutions. This kind of matchmaking is something we hope ParticipateDB will help facilitate as we grow the site into one of the premier community-driven resources and the world's most comprehensive directory of its kind.

Tim Bonnemann is the founder and CEO of Intellitics Inc. (http://www.intellitics.com) a participation startup based in San José, CA.

GovLoop's "Extraordinary Collection of Talent"

By Andrew Krzmarzick, Community Evangelist Steve Ressler, Founder and President GovLoop

"I think this is the most extraordinary collection of talent, of human knowledge, that has ever been gathered... with the possible exception of when Thomas Jefferson dined alone."

- John F. Kennedy

early 50 Nobel Prize winners had gathered at the White House when President John F. Kennedy made this remark on April 29, 1962.

By Memorial Day 2009 – almost 50 years later – thousands of bright minds had formed another "extraordinary collection of talent and human knowledge," gathering not at the White House, but on a Web site. Dubbed the "Facebook for government," GovLoop has become the premier social network for public servants and people supporting government to connect and collaborate.

Growing to more than 29,000 members in just 20 months, the network is extraordinary for its openness and transparency in sharing knowledge and professional networks to accelerate innovation and improve government. Stretching from U.S. federal, state, and local government employees to their counterparts in Canada, Australia, New Zealand, and the United Kingdom (to name just a few), GovLoop members discuss ideas, share best practices, and create a community dedicated to the improvement of citizen services in the United States and beyond our borders.

Members range from White House political appointees to the deputy chief

technology officer of Canada, city managers and brilliant innovators across all levels of government. Since its launch, GovLoop members have created thousands of blogs and discussions, and launched hundreds of groups. The open, accelerated flow of information on GovLoop has led to the rapid replication of ideas and best practices across all levels of government, assisting in improved government operations and performance.

One of the most powerful features of GovLoop is the ability of members to create groups. In March 2009, Assistant Commissioner Mary Davie, of the GSA Federal Acquisition Service's Office of Assisted Acquisition Services, launched the Acquisition 2.0 group. It has grown to include more than 400 highly active members representing all levels of government, nonprofits, and private-sector organizations. Within two months of the group's creation, members planned and hosted an event that provided a platform for key thought leaders and others to extend their online conversations in person.

As word of the group and its goals spread, fresh ideas were floated to Davie, including the creation of a crowd-sourcing website where people could submit, vote, and comment on recommendations for improving the federal acquisition process. In fact, the National Academy for Public Administration was willing to provide some resources to create such a site using an idea generation platform called UserVoice. NAPA had already worked with UserVoice to set up similar discussions for the White House, including Housing and Urban

Development Ideas In Action. The American Council for Technology's Industry Advisory Council offered to partner on the project, as well.

The result was the Better Buy Project which was launched in early October 2009. Within two months, the site has elicited more than 70 ideas and hundreds of votes and comments.

In addition to the Acquisition 2.0 group, GovLoop members:

- Were a leading source of government input into the Obama administration's open government memo;
- Established a repository of best practices on items including social media policies, government hiring, and government Twitter use.
- Launched a top-rated podcast "Gov 2.0 Radio" with such guests as Tim O'Reilly, founder of O'Reilly media, and Craig Newmark, founder of Craig's List; and
- Produced a first-of-its-kind
 "TweetBook" following the Open
 Government and Innovations
 Conference and a similar summary
 of tweets from Transparency Camp
 West that is being replicated in
 other industries.

We expect GovLoop will play a large role in informing the Open Government Working Group created to oversee implementation of the Open Government Directive. Already, members have created and commented on more than a dozen blog posts and discussions forums on the directive and have formed an open government group with nearly 200 members.

Furthermore, government agencies across the world are collaborating at a peer-to-peer level that is rarely seen. Approximately 5% of GovLoop's membership is international. It draws members from the United States, Canada, Australia, New Zealand, and the United Kingdom, as well as Brazil, China, India, New Zealand, Norway, Spain, Sweden, and many other countries. Despite cultural differences,



there are many similarities around the globe in the adoption of a more open, transparent and collaborative government. In traditional situations, best practices around e-government are shared at conferences where only a few select countries and a few representatives can attend. GovLoop has fostered peer-to-peer information-sharing at the international level among both leaders and at the working level.

To be fair, GovLoop is not the first website to gather a group of government employees across agencies. Such sites as OMB's MAX Community, Army Knowledge Online, Intellipedia, and Company Command have been providing spaces for federal employees to discuss and collaborate on internal and cross-agency initiatives. These sites have been hugely successful in increasing information-sharing within the federal government and connecting likeminded people across bureaucratic silos. GovLoop builds upon these initiatives and is one of the most diverse, with its state, local and international membership, as well as academic, nonprofit, and private-sector participants. Membership ranks are increasing at a rate of 10% each month - a number that is growing exponentially as more and more public servants tell their colleagues about its

cross-government, collaboration-producing power.

Government may not be perfect. But we are convinced that GovLoop is a place where both Jefferson and Kennedy would be proud and impressed to find such "a collection of talent and of human knowledge" among people concerned with the improvement of government – and that they would call it nothing less than extraordinary.

Steve Ressler is the founder and President of GovLoop and Andrew Krzmarzick is the Community Evangelist. For more information go to www.govloop.com.

Better Buying Through Collaboration

By Mary Davie, Assistant Commissioner for the Federal Acquisition Service and Lynnie Martin, Contracting Specialist, Federal Systems Integration Management Center U.S. General Services Administration

n President Obama's first day in office, he challenged leaders in government to "use innovative tools, methods, and systems to cooperate among themselves, across all levels of government, and with nonprofit organizations, businesses, and individuals in the private sector."

Within six weeks of taking office, Obama issued a memo to the heads of departments and agencies on government contracting. The memo notes that "since 2001, spending on government contracts has more than doubled, reaching over \$500 billion in 2008." As the demand for goods and services increased, the acquisition process has simultaneously become more complex and less efficient. The costs of this complexity and inefficiency are borne by the government, the private sector industry, and, ultimately, the public.

Since that March 2009 memo, the Office of Management and Budget has released several additional memos focused on reducing spending and costs, strengthening the acquisition work force, and improving the way the government buys. Much of the guidance provided encourages agencies to find ways to reduce spending by examining current contracts and contracting practices. In addition, recruiting issues have become critical as the government has been unable to keep the federal acquisition work force growing at the same pace as the growth in acquisitions. As a result, government program and acquisition officials are being asked to do more with fewer resources. The acquisition process represents one of the most important areas of collaboration between

government and the private sector.

As the Brooking Institution's Darrell West wrote in the Spring 2009 Intergovernmental Solutions Newsletter on Transparency and Open Government, "technology [is] a 'game-changer' that transforms the culture, organization and functioning of government." Technology is changing every aspect of our lives, including markedly improving our ability to communicate, collaborate, and solve problems using a worldwide network. Employed effectively, collaborative technology can also be a game-changer for federal acquisition.

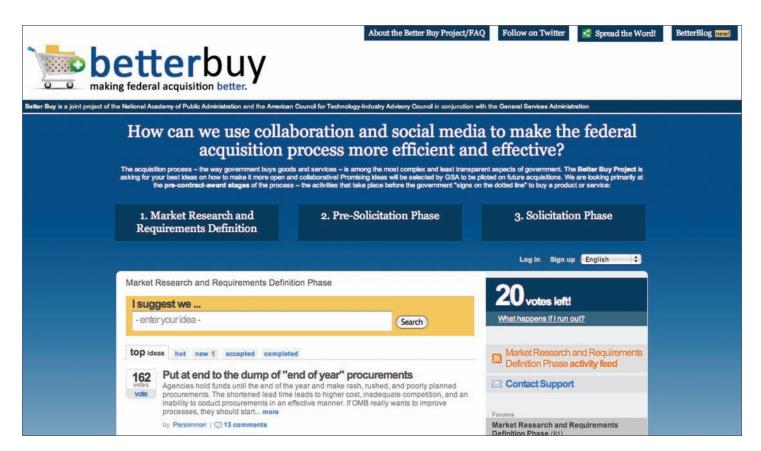
One example of this is the Acquisition 2.0 group residing on GovLoop.com, the "social network for government." GovLoop was created in the summer of 2008 to provide a platform to enable information sharing and networking by individuals from federal, state, local and international governments, and private-sector and nonprofit organizations. Today, the GovLoop community is almost 23,000 strong and supports more than 600 sharedinterest groups, It was the logical place to seek out new ideas about the federal procurement process, from the people who use it in their work every day.

At the GSA Federal Acquisition Service, the government's central procurement agency, which oversees more than \$66 billion a year in federal contracts, we are always looking for better ideas. So we started a group within GovLoop for "sharing ideas and experiences employing innovative acquisition practices, collaborative methods and use of Web2.0 technologies to transform federal acquisition." The Acquisition 2.0

group was created in May 2009 to help fill the void and provide a collaborative platform across the acquisition community (including the private sector) to improve the way the government buys and to reduce associated costs. It now has more than 400 members from federal, state and local government, industry, and other stakeholder organizations around the world. They are actively and openly discussing common acquisition challenges, solutions, ideas, and experiences, as well as specific ideas to improve agency mission effectiveness.

One early post by Andy Krzmarzick (now GovLoop's Community Evangelist), titled "10 Ways Social Media Will Improve Federal Acquisition," sparked a new direction in the Acquisition 2.0 group. This post described the potential for applying collaborative technologies to the acquisition process. Krzmarzick reviewed more than 120 comments posted in the Acquisition 2.0 group, as well as background documents that had been posted by group members. These included blog posts, white papers out of industry and academia, and a Government Accountability Office report on the Federal Acquisition Function at Federal Agencies.

This analysis, coupled with his own experience led him to propose applying technology in different ways to support people and change the acquisition process. The ensuing discussion energized the group, which wanted to test the ideas on an actual acquisition. Several group members from GSA and the American Council for Technology/Industry Advisory Council



proposed expanding the discussion to solicit additional ideas through a forum similar to the National Academy for Public Administration's National Dialogues.

Thus, the BetterBuy Project was born. BetterBuy is a platform that enables the public to submit, comment, and vote on ideas to make the federal acquisition process more open, collaborative, and transparent, with a particular focus on the use of collaborative technology to do so.

NAPA and ACT/IAC formed a partnership with GSA and established these roles:

- ACT/IAC, a nonprofit publicprivate partnership, would direct its Acquisition Management Shared Interest Group to document the process and experience, and would supply volunteers to serve as moderators and catalysts for the public forum;
- NAPA, which had conducted several previous online dialogues for government agencies would

- stand up and host the platform for BetterBuy and the companion blog.
- GSA, the customer whose responsibility is to manage the complex federal procurement process, would review and apply ideas as appropriate to selected acquisitions;

To date, more than 100 ideas have been received through BetterBuy primarily addressing the pre-award phases of acquisition: market research and requirements definition, presolicitation, and issuing the solicitation. GSA reviewed all submitted ideas and categorized them for action into three areas: 1. within scope of BetterBuy and to be analyzed for application; 2. to be discussed with the Government Accountability Office or Office of Management and Budget; 3. suggestions that would require legislative or Federal Acquisition Regulation changes.

GSA then selected an acquisition and selected appropriate ideas and technologies to apply throughout the three pre-award phases of the process – targeted for February 2010. The team is using the BetterBuy blog as a forum to provide updates on the project and for those involved or interested in the project to share thoughts and experiences. Even Craig Newmark of Craig's List, a pioneer of innovative acquisition, contributed early on.

What's unique to the Better Buy project is that it has resulted in a process, not just a website, which provides a model for governments to engage in idea exchange and incubation for innovation. This model will help make the government a more informed, effective buyer and result in better government for the American taxpayers.

Mary Davie is the Assistant Commissioner for the Assisted Acquisition Services Portfolio in the GSA Federal Acquisition Service. For more information about the project visit www.betterbuyproject.com for Frequently Asked Questions.

Technology Enables Local Governments to Collaborate

By Bill Greeves and Pam Broviak Co-founders MuniGov2.0

Come Mix it Up With Us!

In September 2008, we were both civil servants on a mission, scanning the horizon from our work stations in city and county governments 750 miles apart, looking for better resources for government foot soldiers to take some Web 2.0 action. We met through a mutual online colleague and discussed some great ideas via Skype and Second Life, but when we returned to our respective work in Geneva, IL and Roanoke, VA, we found it hard to find some solid resources to help us build on our ideas. We whined about it for a little while but soon we decided that if we couldn't find it, we'd build it! So we put our money where our mouths were, and we founded MuniGov2.0.

MuniGov2.0 is a coalition of federal/state /municipal and international governments focused on exploring the use and principles of Web 2.0 in an effort to improve citizen services and communication via technology.

We based the group solely on the idea that there was value to be had in collaboration, and that Web 2.0 could be just the platform we needed to promote and leverage that collaboration in government.

We started the organization with a collaboration Web site using Google Sites. Then we built a Google Groups discussion board and established a foothold in the virtual world by setting

up a MuniGov HQ in Second Life. These initial efforts attracted a community of like-minded peers with a common interest in applying Web 2.0 concepts to local government. Our growing group embraced the use of these online tools and started documenting Web 2.0 resources and best practices. We welcomed ideas from around the world and opened the group up to collaboration from anyone working in or for government. Word of mouth and some very timely media coverage did the rest. We grew rapidly, nearly exponentially, as the demand skyrocketed for guidance and camaraderie and the journey of 2.0 use in government became commonplace.

We modeled MuniGov on the following principles to allow the group to evolve as more governments begin exploring and applying the concepts and technologies of the Web 2.0 movement:

- The more people participate in the development of the product, the more valuable it will become
- All ideas and collaboration are welcome
- Individual feedback and submissions



will make the group a truly effective resource and create an environment in which everyone learns from each other.

These principles were enhanced with the following basic goals:

- Become a recognized, powerful and dynamic resource for governments implementing and innovating via Web 2.0
- Establish a strong set of virtualworld resources for government agencies
- Coalesce into a large, active, and innovative user community
- Seek innovation and opportunity in difficult economic times
- · Have a little fun along the way

The group continued to attract interest because Web 2.0 in government could no longer be ignored. The Web site expanded as more and more participants shared their best practices, policies, ideas and suggestions. The list serve started rolling with dynamic questions and answers from all areas of government. Both of us, along with several other members of the group, began to participate in discussions, presentations and projects in work rooms, college lecture halls, and larger conferences around the globe. Using Web 2.0 tools, we were able to participate not only in-person but often virtually. Our foothold in Second Life expanded as we added free virtual offices for all member governments to use.

One Wednesday last winter, someone came up with a great idea: why not hold a conference in Second Life? This would allow us to move past the general "wouldn't-it-be-cool-if" discussions into providing tangible, valuable (and free!) resources to our members. There was a unanimous group decision to go for it and MuniGovCon09 was born! For several months we devoted our Wednesdays, and many more days, to pulling together a conference in Second Life. The theme of the conference was introducing Web2.0 to the government

community. Munigov members met in Second Life to plan the conference and held one-on-one planning discussions via Skype. A collaboration site was used to share information and allow for conference registrations. Twitter, blogs, and social networks were used to help get the word out.

By the time the conference time rolled around, we had nearly 170 registrations. And although we don't have an exact number, we estimate that the number of attendees was actually at least double this. Many organizations filled a real-life conference room and watched the conference on the big screen via the virtual eyes of a designated avatar. As you'll note from the session videos, we certainly had a fair share of technical hiccups throughout. We knew this was inevitable, given the heavily concentrated noob herd that the conference attracted. However, the MuniGov2.0 hosts and conference speakers showed tenacity, resourcefulness, and perseverance in working through the problems and putting on a good show.

The speakers at the event included people from local, state, and federal government offices, as well as higher education, all of whom spoke on intriguing ideas and engaging topics relevant to Government 2.0. We even had an interactive Q&A session that engaged the audience with a panel of Government 2.0 enthusiasts focused on several social-media related topics. The speakers and their topics were well received, based on the very positive evaluations we collected. Perhaps most importantly in these economic times, we were able to save attendees thousands of dollars in registration and travel fees to attend the enlightening sessions. All they had to do was log-in from a computer. And there was no lost baggage, missed flights, or expensive hotel rooms associated with this conference!

Eighteen months later, MuniGov has grown to nearly 600 members from around the world, and we are happy to report significant progress towards all of our goals. We have a diverse and

dedicated membership that literally spans the globe and incorporates nearly all of the functions in each level of government. From police officers to public information officers, technology directors to elected officials, the MuniGov group and its resources have become a powerful asset to use as a resource for 2.0 research and implementations. The group has established a prolific Web presence (www.munigov.org) and meets via avatar every other Wednesday night in the virtual world of Second Life to talk shop about the policies, tools, trials, and tribulations of Government 2.0 or just government in general. We've accomplished all this solely thanks to the efforts of a talented and dedicated volunteer group – no budget required!

Thanks to the generosity of the National Oceanic and Atmospheric Administration, we've got a bigger, better home in Second Life as we also begin to explore other virtual world opportunities. And we've got big plans with regards to government education and collaboration. There is no end in sight for the future potential of Government 2.0 and we hope to continue to be a valuable part of it!

Want to know more? Give us a shout or sign-up today on the Web site, and join in the conversation and the collaboration!

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Virtual Worlds as a Setting for Scientific Collaboration

By Lisa Zyga Freelance writer Physorg.com

ormally, virtual worlds are the setting of many online games and entertainment applications, but now they're becoming a place for scientific collaboration and outreach, as well. A team of scientists from the California Institute of Technology, Princeton, Drexel University, and the Massachusetts Institute of Technology have formed the first professional scientific organization based entirely in virtual worlds. Called the Meta Institute for Computational Astrophysics (MICA), the organization conducts professional seminars and popular lectures, among other events, for its growing membership.

MICA (http://www.mica-vw.org/) is currently based in Second Life, where participants use avatars to explore and interact with their surroundings. It will expand to other virtual worlds when appropriate. Currently MICA has 52 professional members and over 100 members of the general public interested in learning about science, specifically astronomy. MICA is also establishing collaborative partnerships with the IT industry, including Microsoft and IBM, and plans to further develop industrial partnerships.

"Virtual worlds are already a very fruitful arena for research in social sciences and humanities, including sociology, economics, psychology, etc.," said author George Djorgovski. "They are already a superb educational and outreach platform, and should be used much more. We are trying to find out what else we can do with these technologies in the natural sciences, such as physics and astronomy."

In addition to getting people together in a free and convenient way, virtual worlds can offer new possibilities for scientific visualization or "visual analytics." As data sets become larger and more complex, visualization can help researchers better understand different phenomena. Virtual worlds not only offer visualization, but also enable researchers to become immersed in data and simulations, which may help scientists think differently about data and patterns. Multi-dimensional data visualization can provide further advantages for certain types of data. The researchers found they could encode data in spaces with up to 12 dimensions, although they ran into the challenge of getting the human mind to easily grasp the encoded content.

"The slow adoption of these virtual reality technologies by the academic



(or any other professional) community is probably largely due to a widely held misperception that this is 'just games,'" Djorgovski said. "This is incorrect. While these technologies got developed largely by the gaming industry, and there is certainly a lot of gaming going on, virtual worlds are something bigger: a general platform for all kinds of activities, ranging from entertainment to purely professional. Just like the Web itself."

Djorgovski and his coauthors see virtual reality as the next step in the continuing evolution of the ways we use information and computation technology to interact with each other. They predict that, in the future, virtual reality will become more synthesized with the Web by serving as an interface and replacing today's browsers.

"One can think of immersive virtual reality as the next-generation browser technology, which will be as qualitatively different from the current, flat desktop and web page paradigm. As the current browsers were different from the older, terminal

screen and file directory paradigm for information display and access," the authors explained in their overview.

As Djorgovski added, immersive virtual reality (including virtual worlds) seems currently to be roughly at a stage of development as the Web in 1992, with limited reach but huge growth potential. "Possibly the overall societal impact of these technologies will be as big as that of the Web itself - or even bigger," he said.

One part of this possible next generation application of virtual reality is an open source program called "OpenSimulator" (or "OpenSim"), which enables users to create their own 3D virtual worlds and applications. The authors predict that the synthesis of the Web and virtual reality could involve individuals managing their own virtual reality environment in a way that is analogous to hosting and managing websites today.

In the meantime, MICA's virtual events for a general audience include a series of popular talks called "Dr. Knop Talks Astronomy" and weekly

"Ask an Astronomer" sessions. The authors have also started experimenting with regular student classes, graduate seminars, class discussions, and hybrids in which students read lecture materials on their own and use class time for an open discussion in the virtual world setting. They also plan to conduct a series of international "summer schools" on topics including numerical stellar dynamics, computational science and others, in an immersive and interactive virtual world venue.

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 S. G. Djorgovski, P. Hut, S. McMillan, E. Vesperini, R. Knop, W. Farr and M. J. Graham. "Exploring the Use of Virtual Worlds as a Scientific Research Platform: The Meta-Institute for Computational Astrophysics (MICA)."



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